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GUJARAT STATE GAZETTEERS

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Government of Gujarat

BROACH DISTRICT

(REVISED EDITION)

(Revised edition of Volume II of the original Gazetteer of the Bombay Presidency relating to Surat and Broach)

AHMEDABAD

DIRECTORATE OF GOVERNMENT PRINTING, STATIONERY AND PUBLICATIONS, GUJARAT STATE

1961

GAZETTEER OF INDIA

GUJARAT STATE GAZETTEERS

BROACH DISTRICT

FIRST EDITION : 1877
(SURAT AND BROACH)

SECOND EDITION (Revised) : 1961

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PART VI.

PREFACE

The Gazetteer of Bombay Presidency, which included the districts of Gujarat, was originally compiled between 1874 and 1884. Broach and Surat district Gazetteers were combined in one volume which was published in 1877. In the revised edition of the Gazetteers which is now being prepared and published, it has been decided to devote one volume to every district Gazetteer.

This Broach volume was compiled and put into type before the bifurcation of Bombay State on 1st May 1960. However, because of the dislocation caused by the bifurcation it could not be published immediately. An attempt has, therefore, been made to bring the information as up-to-date as possible by adding a brief supplement at the end of Chapter 20.

Diacritical marks to explain the pronunciation of names of places and of words in Indian languages have been used only in two chapters—Chapter III, The People and Their Culture and Chapter XX, Places of Interest, and also in the Directory of Villages and Towns. In other chapters, the current spellings have been retained. A key to the diacritical marks is given at the beginning of the Directory.

The Government of India have interested themselves in the preparation and publication of a new edition of Gazetteers of districts in all the States and have offered to the States a grant-in-aid for the purpose. A broad pattern of the contents of the revised volumes has been evolved and it is generally followed in this volume.

Ahmedabad,
15th August, 1961.

M. R. Palande,
Chief Editor.

GENERAL INTRODUCTION

As EARLY as 1843 an attempt was made to arrange for the preparation of Statistical Accounts of the different districts of the Bombay Presidency. The following extract* will be found interesting as giving an idea of the intention of those who desired to have such Accounts compiled :—

"Government called on the Revenue Commissioner to obtain from all the Collectors as part of their next Annual Report the fullest available information regarding their districts ....Government remarked that as Collectors and their Assistants during the large portion of the year moved about the district in constant and intimate communication with all classes they possessed advantages which no other public officers enjoyed of acquiring a full knowledge of the condition of the country, the causes of progress or retrogradation, the good measures which require to be fostered and extended, the evil measures which call for abandonment, the defects in existing institutions which require to be remedied, and the nature of the remedies to be applied. Collectors also, it was observed, have an opportunity of judging of the effect of British rule on the condition and character of the people, on their caste prejudices, and on their superstitious observances. They can trace any alteration for the better or worse in dwellings, clothing and diet, and can observe the use of improved implements of husbandry or other crafts, the habits of locomotion, the state of education, particularly among the higher classes whose decaying means and energy under our most levelling system compared with that of preceding governments will attract their attention. Finally they can learn how far existing village institutions are effectual to their end, and may be made available for self-government and in the management of local taxation for local purposes."

"In obedience to these orders, reports were received from the Collectors of Ahmedabad, Broach, Kaira, Thana and Khandesh. Some of the reports contained much interesting information. These five northern reports were practically the only result of the Circular Letter of 1843."

The matter does not seem to have been pursued any further.

In October 1867, the Secretary of State for India desired the Bombay Government to take concrete steps for the compilation of a Gazetteer of the Presidency on the model of the Gazetteer prepared during that year for the Central Provinces. The Government of Bombay then requested some of its responsible officials to submit a scheme for carrying into effect the orders of the Secretary of State, and in 1868, appointed the Bombay Gazetteer Committee to supervise and direct the preparation of the Gazetteer. After a few organizational experiments the responsibility was finaly entrusted to Mr. James M. Campbell of the Bombay Civil Service, who commenced the compilation in 1874 and completed the series in 1884. The actual publication, however, of these volumes was spread over a period of 27 years between 1877 and 1904, in which year the last General Index volume was published.

* *Gazetteer of the Bombay Presidency*, Vol. I, Part I (History of Gujarat), pp. III and IV.

Though a Gazetteer literally means only a geographical index or a geographical dictionary, the scope of this particular compilation was much wider. It included not only a description of the physical and natural features of a region but also a broad narrative of the social, political, economic and cultural life of the people living in that region. The purpose which the Gazetteer was intended to serve was made clear in the following remarks of Sir William Hunter, Director General of Statistics to the Government of India, when his opinion was sought on a draft article on Dharwar District in 1871. He said :—

> "My own conception of the work is that, in return for a couple of days' reading, the Account should give a new Collector a comprehensive, and, at the same time, a distinct idea of the district which he has been sent to administer. Mere reading can never supersede practical experience in the district administration. But a succinct and well conceived district account is capable of antedating the acquisition of such personal experience by many months and of both facilitating and systematising a Collector's personal enquiries... .But in all cases a District Account besides dealing with local specialists should furnish a historical narration of its revenue and expenditure since it passed under the British rule, of the sums which we have taken from it in taxes, and of the amount which we have returned to it in the protection of property and person and the other charges of civil government."*

The Gazetteer was thus intended to give a complete picture of the district to men who were entire strangers to India and its people but who as members of the ruling race carried on their shoulders the responsibility of conducting its administration.

The Gazetteer had 27 Volumes, some split up into two or three Parts, making a total of 35 books including the General Index which was published in 1904 Some of the Volumes were of a general nature and were not confined to the limits of a particular district. For example, Volume I dealt with History and was split up into two Parts, one dealing with Gujarat and the other with Konkan, Dekhan and Southern Maratha Country, Volume IX was devoted to the Population of Gujarat and contained two parts, one describing Hindus and the other Mussalmans and Parsis, but there was no corresponding Volume devoted to the Population of Maharashtra or Karnatak. Volume XXV gave an account of the Botany of the area covered in the whole Presidency. The remaining Volumes dealt with the various districts of the Presidency and with what were then known as Native States attached to the Bombay Presidency. Some of the District Volumes had two or three Parts, for example, those of Thana, Kanara, Poona and Bombay. On the other hand, there was only one combined Volume for some districts, as for example, Surat and Broach, and Kaira and Panch Mahals.

* *Gazetteer of the Bombay Presidency*, Vol I, Part I (History of Gujarat), p. VIII.

The scheme of the contents was more or less the same for all the District Volumes though the accounts of particular items varied considerably from district to district. Information was collected from Government Offices and in respect of social and religious practices, from responsible citizens. Eminent scholars, experts and administrators contributed articles on special subjects.

This Gazetteer compiled over seventy years ago had long become scarce and entirely out of print. It contained authentic and useful information on several aspects of life in a district and was considered to be of great value to the administrator, the scholar and the general reader. There was a general desire that there should be a new and revised edition of this monumental work. The Government of Bombay, therefore, decided that the old Gazetteer should be revised and republished, and entrusted the work of revision to an Editorial Board specially created for that purpose in 1949. After the bifurcation of Bombay State on 1st May 1960 and the creation of the new State of Gujarat on that day, the preparation of revised Gazetteers of districts in Gujarat State has been undertaken by the Government of Gujarat.

In the nature of things, after a lapse of over seventy years after their publication, most of the statistical information contained in the old Gazetteer had become entirely out of date and had to be dropped altogether. In this edition an attempt has been made to give an idea of the latest developments, whether in regard to the administrative structure or the economic set up or in regard to social, religious and cultural trends. There are portions in the old Gazetteer bearing on archaeology and history which have the impress of profound scholarship and learning and their worth has not diminished by the mere passage of time. Even in their case, however, some restatement is occasionally neceessary in view of later investigations and new archaeological finds by scholars, and an attempt has beeen made to incorporate in this edition the results of such subsequent research The revision of the old Volumes has, in fact, meant an entire re-writing of most of the chapters and sections. In doing so, statistical and other information was obtained from the relevant Departments of Government, and articles on certain specialised subjects were obtained from competent scholars.

In a dynamic world, circumstances and facts of life change, and so do national requirements and social values. Such significant changes have taken place in India as in other countries during the last half a century, and more so after the advent of Independeace in 1947. The general scheme and contents of this revised series of the Gazetteer have been adapted to the needs of the altered condi-

tions. There is inevitably some shift in emphasis in the presentation and interpretation of certain phenomena. For example, the weighted importance given to caste and community in the old Gazetteer cannot obviously accord with the ideological concepts of a secular democracy, though much of that data may have considerable interest from the functional, sociological or cultural point of view. What is necessary is a change in perspective in presenting that account so that it could be viewed against the background of a broad nationalism and the synthesis of a larger social life. It is also necessary to abridge and even to eliminate elaborate details about customs and practices which no longer obtain on any extensive scale or which are too insignificant to need any elaboration. In the revised Gazetteer, therefore, only a general outline of such practices and customs of the main sections of the population has been given.

An important addition to the District Volume in this edition is the Directory of Villages and Towns given at the end which contains, in a tabulated form, useful information about every village and town in the district. The district maps given in this edition are also fairly large and up-to-date.

The Revised Gazetteer will be published in two series :—

I—*The General Series* : This will comprise Volumes on subjects which can best be treated for the State as a whole and not for the smaller area of a district. As at present planned, they will deal with Physical Features, People and Their Culture, History, Language and Literature and Public Administration

II—*The District Series* : This will contain one Volume for every district of the Gujarat State. The information given in all Volumes will follow the same pattern, and the table of contents will more or less be the same for all districts.

AHMEDABAD,
July, 1961.

M. R. PALANDE,
Chief Editor.

BROACH

PART I

CHAPTER 1—PHYSICAL FEATURES AND NATURAL RESOURCES.

CHAPTER I.

Physical Features.

SITUATION.

THE DISTRICT OF BROACH, lying between 21°25′45″ and 22°15′16″ north latitude, and 72° 34′ 19″ and 73° 12′ 15″ east longitude, has a total area of 2,934.2 square miles,* and a population of 7,06,035 souls or 240.6 per square mile.

Boundaries.

Separated on the north-east by the river Mahi from the territory of the district of Kaira, Broach, to the north-east and east, borders on the districts of Baroda and West Khandesh. To the south lies the Surat district, the Kim river a long way in the south-west and the Tapi river a short way in the south-east running between the two districts. To the west lies the Gulf of Cambay along whose shore the lands of the district stretch for a distance of about fifty-four miles.

SUB-DIVISIONS.

For administrative purposes, the district is divided into two sub-divisions, *viz.*, Broach and Rajpipla. The Broach sub-division is divided into four talukas and two petas, and the Rajpipla sub-division into three talukas and two petas. The average area of a taluka or peta works out at 266.74 square miles, containing on an average, the lands of 107 villages and a population of 64,185 souls. The administrative divisions, with their area, number of villages and towns, and population according to the Census of 1951 are given below :—

Sub-division.	Name of taluka or peta.	Area in sq miles	Number of Villages	Number of towns	Population.
Broach	Broach taluka	252.7	99	1	1,50,678
	Ankleshwar taluka	159 9	54	1	62,949
	Jambusar Taluka	385 9	80	2	92,320
	Vagra taluka	348 0	69	—	44,717
	Amod peta	179 5	55	1	44,984
	Hansot peta	154.0	46	1	31,950
Rajpipla	Nandod taluka	436 7	220	1	1,00,170
	Jhagadia taluka	313.7	166	—	81,201
	Dediapada taluka	391.7	197	—	30,051
	Valia peta	184.5	98	—	50,131
	Sagbara peta	127.6	96	—	16,884
	Total	2,934 2	1,180	7	7,06,035

*This is the total of the area figures of talukas and petas supplied to the Census authorities by the Collector of Broach from the annual land revenue return district form No. 1. The area figure supplied to the Census authorities by the Surveyor-General of India was 2,911.4 square miles. The Census authorities have assumed the Collector's figures to be more accurate.

HAPTER 1.

Physical Features.

RELIEF AND DRAINAGE.

Geographically the older district of Broach constituted a marginal strip of 1,458 square miles of the southern Gujarat alluvial plain, but since the recent acquisition of the old Rajpipla State territory it has an eastern extension which over a major part belongs to a hill tract consisting of a junction between the Satpuras and the Sahyadries. The new district has thus two regions of geographical contrast: the alluvial plain of the north and north-west and the Rajpipla Hills in the south-east. with their northern adjuncts in the Chhota Udaipur range. The alluvial plain is a product of the age-long processes of erosion and deposition carried out by the major rivers of southern and central Gujarat flowing westwards from the Malwa highlands to the Gulf of Cambay. There appear to be well marked phases in the evolution of this alluvial plain and its present topographical setting. Initially this region was probably an extension of the shallow stretches of the Gulf of Cambay, where ungraded streams flowing from the highland backbone dropped their transported material to develop the plain with its characteristic deposits of alluvium and coarser debris. That the process of deposition continues to this day may be well seen in the constructional features of landscape such as mud banks. braided water channels, stretches of heavy silting, swamps and alluvial islands all along the Cambay coastline. But a subsequent lowering of the base level of erosion has introduced several striking features in the landscape of this region. The uplift of the land in relation to sea level meant rejuvenation of the entire drainage pattern of this portion of Gujarat, and consequently all stream courses in their new cycle of erosion have developed features of degradation of which entrenched river courses. gully erosion and formation of terraces are the most prominent. This largely explains the present day topography of local contrast in southern Gujarat In its wider dimensions the whole area is a level alluvial plain dominated by the major river Narmada. But locally it bears extensive marks of stream erosion and presents a much dissected appearance. Infrequent streams, deep river beds, alluvial bluffs, soil wash. swinging water channels — features so well associated with this region — must be explained in the context of the physiographic evolution The Rajpipla hills, the terminal end where the Satpuras and the Sahyadries merge. form an erosional counterpart in that they are the worn out stumps of a highland which has supplied material towards the building up of the alluvial plain on the east. A smooth crestline interspersed with occasional flat plateau tops, river valleys with steep side walls, and fault-guided drainage in places, form the major feature of this generally mature landscape pattern of the Rajpipla hills. Thus, in detail, the new district of Broach may be said to possess five sub-divisions of varying landscapes: (1) the swampy coastline where the shoreline processes control the landscape; (2) the dissected alluvial plain of the centre, largely the product of deposition by the Dhadhar, the Narmada and the Kim rivers; (3) the Narmada valley plain, quite distinct on account of the magnitude involved in the landscape sculpture by this river; (4) the Rajpipla piedmont belts, built up by parallel

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flowing streams; (5) the Rajpipla Hills, the erosional remnants of the south-east.

The district is drained from east to west by four principal rivers. The Mahi which marks the northern limits of the district, the Dhadhar about 20 miles south of the Mahi, the Narmada in the centre and the Kim in the south. A small strip of the district abouts the banks of the Tapi in the south-east in the Sagbara peta. These principal rivers have a parallel flowing pattern and geologically they have developed the alluvial plain of south Gujarat of which Broach district is a part. The extensive depositional features are now marked with equally extensive erosional features mainly due to the change in the sea level and resumption of the erosive action of the streams. Thus, the large alluvial plain has been extremely dissected by gully erosion and deep cut channels. The rivers and their tributaries are often marked by a network of ravines by the force of their waters. This denudational action accounts for the intense soil erosion and the difficulties in bringing agricultural areas under irrigation. Although each river has an estuary extending over several miles, all of them except the Narmada, and for a short distance the Dhadhar, are hardly useful for navigation.

The Dhadh.

The Dhadhar, with a course seventy miles in length and a drainage area estimated at 1,850 square miles, falls into the Gulf of Cambay about twenty miles south of the estuary of the Mahi. Rising behind Champaner, the western spur of the Vindhyan range, the main stream of the Dhadhar flows in a westerly direction till, about thirty miles from the sea, it is joined from the right by the Vishwamitri, on whose banks stands the city of Baroda.

The course of Dhadhar through the district of Broach forms two sections, each about twelve miles in length. During the first, the bed of the river, bounded by high banks of earth and mud, winds in a south-westerly direction with the Amod peta on the left and Jambusar Taluka on the right. About six miles below the town of Amod, it is joined on the left by a lagoon or back-water called the Mota creek. Below this point with a generally westerly direction, the stream widens into an estuary, still passing between the Jambusar Taluka and the Amod peta till on the right, about seven miles from its mouth, the Dhadhar joins the creek, on the eastern bank of which is situated the port of Tankari. Above the range of the tide the stream in the fair season is small, seldom more than three feet deep. But in the rainy months, rising from twenty to thirty feet above its usual level, it becomes an impassable torrent. Though navigable as far as Tankari, about seven miles from its mouth, the passage of the river is difficult. The channel is obstructed by mud and sand banks of various sizes. At low water the creek on which Tankari is situated, cannot be approached within two or three miles. It has then, in its deepest channel, but a foot or two of water, and this, during the dry season, becomes reduced to six or seven inches.

CHAPTER 1. — Physical Features. RIVERS Narmada.

The river Narmada, known also as the Rewa, and so giving its name, the Rewa Kantha to the portion of Gujarat through which the river passes between the Sahyadri Hills and the eastern limit of the Baroda territory, has a course, including windings, of from seven to eight hundred miles in length; a drainage area estimated at 36,400 square miles and a discharge in time of maximum flood, of about two and a half million cubic feet per second.

Source.

The source of the Narmada is in the hill of Amarkantak, in the Bilaspur district of Madhya Pradesh, 3,500 feet above the level of the sea. After descending from the hills in which it rises, and until it reaches the Gujarat plain, the course of the Narmada for about 500 miles lies between the Vindhya range on the right and the Satpura hills on the left. Throughout this distance the valley of the Narmada is narrow. The mountain ranges on either side, with an average distance of from eighteen to twenty-six miles are nowhere more than forty miles apart.

The Course.

The course of the Narmada divides itself into five stages; the first, about two hundred miles in length from its rise in the hill of Amarkantak to its fall, about nine miles below Jubbulpore, into the deep cut channel of the marble rocks; the second, a great basin, supposed at one time to have been a lake stretching from Jubbulpore to the town of Handia, a distance of nearly two hundred miles; the third, about 180 miles, is from Handia to Haranfal (deer's leap), where the river begins to force its way from the table-land of Malwa to the level of the Gujarat plain; the fourth, eighty miles, from Haranfal to Makrai, the scene of the last rapid, and the fifth, a passage of 100 miles across Gujarat to the Gulf of Cambay.

In the first stage the river, after descending some hundreds of feet from the heights of Amarkantak, skirts the uplands of the Mandla district and pursuing a westerly course, flows under the walls of the ruined palace of Ramnagar. Thus far the river's course, constantly interrupted by rocks and islands, has been frequently tortuous. But, after passing Ramnagar as far down as Mandla, it flows in a comparatively straight line with an unbroken expanse of blue waters, between banks adorned with lofty trees. Below Mandla the Narmada pent up among rocks of magnesian limestone, flings itself over a ledge with a fall of some thiry feet, called Dhuan-dhar the 'misty shoot', and then enters on a deeply-cut channel carved through a mass of marble and basalt for nearly two miles. The river, which above this point had a breadth of a hundred yards, is here compressed into some sixty feet, passing through a double row of white bluffs from fifty to eighty feet high, the well-known marble rocks. From Jubbulpore to Handia the river flows for some two hundred miles through a valley, broad, rich and highly cultivated.

The third stage of 180 miles, from Handia to Haranfal (deer's leap) is varied in character. At first, the descent is rapid, and the stream, quickening in pace, rushes over barriers of rock. At two points, Mandhar, about twenty-five miles below Handia, and Dadrai,

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twenty-five miles below Mandhar, the river falls over a height of forty feet. A few miles further on, below Barei, where it is crossed by the road from Bombay to Indore, the Narmada enters on its second basin, a deep reach stretching for a distance of 120 miles, broken only by the fall known as Saheshwar Dhara. Here the country is open with the Satpura hills to the south, in some places forty miles distant, while to the north the Vindhya range approaches to within sixteen miles. Towards the west of this basin the hills begin to draw closer together and before they finally dwindle down to the level of the plain, they are separated from each other only by the cleft through which the waters of the Narmada have worn a passage. From the Haranfal to the Makrai falls, a distance of about eighty miles, the river forces its way by a succession of cataracts and rapids, from the elavated table-lands of Malwa to the low level of the Gujarat plain.

Below Markai the Narmada flows westward to the Gulf of Cambay. For the first twenty or thirty miles the river separates the Baroda territory on the right from the Nandod taluka on the left, and then, for the rest of its course, a distance including meanders of about seventy miles, it passes through the lands of the district of Broach. Throughout this section of its course, the Narmada moves through a rich, flat plain, between high rough banks of hardened mud and sand. In breadth the bed of the river varies, from about half a mile where it first enters the district to a mile near the town of Broach. Below Broach, it slowly widens into an estuary, whose shores, where they fall away into the Gulf of Cambay, are more than thirteen miles apart. To the east and west of the city of Broach the northern bank of the river is high and precipitous, its seamed and roughened surface gradually wearing away by the action of the waters. This bank has been found to consist of a stratum of black earth three to four feet deep; under this, mixed with pieces of nodular lime-stone, alternate layers of sand and clay, varying in thickness from two to eight feet; and the lowest of all, about twelve feet from the bed of the river, hard and tenacious clay, well fitted to withstand the action of the floods. The south bank is low and shelving, raised, about twenty-one feet above the fair-weather level of the water of the river. The upper stratum of this bank consists of an alluvial deposit of earth and sand, in some parts cultivated, in others covered with low brushwood extending for a distance of more than a mile southwards to a former channel of the river, when the bank again rises abruptly.* Borings

* The following is the legendary account of this change in the course of the river. "A disciple of the sage Bhrugu, from whose name the present Broach is said to be corrupted, one day, complaining to him of the distance he had to go to wash his clothes, was told that his grievance would be at an end if, the next time he went to wash, he, on his way home, dragged his clothes after him and did not look behind him. The advice was followed and the man, on turning round to look, when he reached his own door, found that the river flowed at his feet instead of at Ankleshwar".

Revenue Commissioner to Government, Northen Division, No. 882 dated 14th February, 1872 (page 98 of the Survey Report of Broach Sub-Division).

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have shown that the bed of the stream consists near the northern bank of a stiff clay; of sand and gravel in the centre; and that close to the southern bank about ten feet of loose stones and shingle rest on a bed of hard sand. The mean of three observations taken near the town of Broach, when the river was free from the influence of the tide, and was at its fair weather level, gives the velocity of the stream at 1.23 feet per second, or a rate of less than one mile an hour.

Tributaries.

In its course through the district of Broach, the Narmada receives four important tributaries, three on the left bank, and one on the right. The *Karjan* rises in the highest part of the Rajpipla Hills, hardly ten miles from the Tapi course in the south, and flowing north drains the Rajpipla uplands and the Nandod plain. After a course of about fifty miles the river joins the Narmada at Rundh. Here, on the opposite bank, the river Orsing joins the Narmada at Vyas in the Baroda district. These three, thus, form a 'Triveni' sangam. From the point of view of economic resources, the Karjan valley is quite important. After an initial course in the rugged hills known for their forest products, the river develops a wide alluvial plain downstream from the Rajpipla town towards Nandod, and in spite of a good deal of gully erosion, this lower part of the Karjan Valley supports agriculture. The *Karjan* has two tributaries of note. on the left bank, the *Mohan* rises in the south and joins the *Karjan* at Thava. The *Tarav*, a more important stream, rises in the heights near Chich Amli and after a course of about thirty miles joins the *Karjan* on the right bank, a few miles west of the fort of Rajpipla. The *Kaveri* is the second important tributary of the Narmada in this district. The river flows from the Rajpipla Hills and enters the Narmada nearly opposite of Shukla-tirth, the famous place of pilgrimage. Further downstream, about six miles above the city of Broach flows the third major tributary the *Amravati*. It flows through the Jhagadia, Valia and Ankleshwar talukas of this district. Next to the Orsing river, which flows in the Baroda district, the Bhukhi is the main tributary which joins the Narmada on the right bank. After draining a major portion of the lands of the Broach taluka it flows into the Narmada at Mehgam, fifteen miles west of the Broach city. Of the lesser tributaries of the Narmada in this district may be mentioned the *Dera* in the eastern extremity and the *Madhumati* and the *Bundra* in the central portions.

Islands.

Within the limits of the banks of the river are several tracts of land raised above the level of the bed, which in times of flood become islands. Of these, the place of most interest is the flat stretch near Shuklatirth, about ten miles from Broach, barely above the level of an ordinary fresh on which the banian-tree is known as the *Kabir wad* though decayed from age, and shorn of much of its beauty by the violence of floods, still remains one of the objects of most interest in the west of Gujarat. Opposite the mouth of the Bhukhi river, is an accumulation of sand and drift known as the

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Alia Bet. This island has an area of about 20,000 acres and is covered by a dense forest of marine trees growing upon dark clayey soil, in every respect very different from the silicious deposit left by the floods higher up in the channel of the river. As it contains no springs of fresh water, and as the greater part of its surface is liable to be covered by the tide, the land of the Alia Bet is still unfit for cultivation. * This tract has reached its present size only after 1825. About 1825 the deposits opposite the mouth of the Bhukhi river formed four small islands. The two largest of these were Kadavia, nearest the land, and Alia, further in the channel of the river@.

Tidal section of Narmada

The rise of the tidal is felt as far as Jhanor about 20 miles upstream of Broach where the rise is said not to exceed a span. From the course of the river the effect of the tide gradually increases till at Broach, the variations are from 12 feet in spring tides to three feet in neap tides and at the mouth of the river the tidal rise is about 25 feet in the spring tide. The presence of these tidal waters in the bed of the river and further up the high level of the surface of the land near the river coast prevent the water of the Narmada being utilised for irrigation.

The Narmad Navigation.

The nagivation in Narmada river is confined to the part of its course that lies within the limits of Gujarat. The navigable portion of the river may be divided into two sections.

The first portion is from the mouth of the river upto Jhagadia. The river is navigable for vessels of the burthen of maximum 95 tons (*i.e.* 380 Bombay candies) from the mouth of the river to Broach port. Vessels of lesser tonnage that is upto 35 tons (*i.e.* 140 Bombay candies) can safely go upto Shamlapitha near Jhagadia. There are several obstructions in the present navigable channel such as sand bars, and sand shoals between Ambhetha at the mouth of the river and Broach port. Most dangerous obstructions are at Suwa, Rahiad, Samani, Megham, Vasna and Kukarwada. The stream at ebb and tide gains the force of between four and five knots an hour inside the river and five to six knots outside and the rise and fall range from 25 feet at the entrance to about 12 feet

*Mr. Newport, by whom they were surveyed in 1819, has left the following account — "Opposite to Kaladra and Megham is an island called Kadavia. Its northern and eastern sides present a bank from five to seven feet high, but to the south and west it slopes gradually into the waters of the Narmada. This island is not arable. It produces the herb called hal, and coarse grass on its southern side. The hal is excellent fodder for cattle, when washed in fresh water and in September it yields grain or seed, which they also call hal, and of which the poorer people make flour for their own consumption. The eastern half of the Alia island has perpendicular banks six feet high and upwards. To the westward it falls into the water with a gentle declivity. It is about three miles in length and is not arable. It produces the hal, and another plant called Karwala is in great abundance. Alia as well as Kadavia are common to all who choose to resort to them" much mud is deposited there.

(@ The collector reports, (12th March, 1956) that now there is only one big island, and it is named Alia Bet. The people of Kaladra and other villages seem to have named a portion of Alia Bet as Kadaria Bet due to the fact that

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The Narmada Navigation.

at Broach. This strong current and large rise and fall greatly reduce any success that might result from dredging the river. Off Jageshwar near Ambetha there is 24 feet of water at dead low water springs, so that the largest vessels might lie there safely at all times of the tide well water-borne. The range of tides at Broach are as under :—

Maximum	12 to 15 feet.
Average	6 to 8 feet.
Neap	2½ to 3 feet.

The presence of the various sand bars as mentioned above is a constant danger to safe navigation and several vessels have been totally lost during the past few years. The port of Broach is open for navigation all the year round. However, the traffic during monsoon is restricted to Bhavnagar and Goga ports by small vessels as big ones do not ply during monsoon. During fair season vessels of various sizes call at Broach port from the Malabar coast, Bombay coast and from the various ports of Saurashtra and Kutch.

The upper navigable part of the river commences at Jhagadia and ends at Gora. This section is navigable for small vessels and boats of less than ten tons (*i.e.* Bombay 40 candies) during floods and freshes. It has been found difficult to sail a vessel of any size against the current further upstream from Tilakvada situated about 35 miles direct and by the meanders of the river 65 miles about the town of Broach. From November to March some traffic is carried out in small boats as far as Mokhdi falls and still further about 15 miles provided a shifting is made in another boat on the other side of Mokhdi fall which is the chief obstacle to this traffic. During monsoon period *i.e.* from July to the end of September, the trade traffic is carried on between Tilakwada and Broach town. During sufficient waters the vessels of small size *i.e.* upto ten tons take about five days for voyage from Broach to Tilakwada with favour able wind. The return voyage between the same places takes about seven to eight days. Between Tilakwada and Broach there are about nine passes during the month of April to June, in the river bed near the villages of Hanumanteshwar, Chandod, Ambali, Bavapayara, Ranapore, Toidra, Dharamshala, Shuklatirth and Kandod*.

The Kim.

The Kim river, with a course seventy miles in length and a drainage area estimated at 700 square miles, falls into the Gulf of Cambay about ten miles south of the estuary of the Narmada. Rising in the Rajpipla Hills, the Kim, for the first part of its course, passes through the Nandod taluka and Valia mahal territory. For the remaining 20 miles the river winds in a westerly direction between the Ankleshwar taluka of the Broach district on the right and the Olpad taluka of the Surat district on the left. Like the other river bed near the villages of Hanumanteshwar, Chandod, Ambali, of earth and mud, the northern bank being the steeper and more rugged. The following is a section of the north bank of the Kim

* Also see pp. 503—507.

CHAPTER — Physical Features. RIVERS. The Kim.

river about twenty miles from its mouth. Of a total height of fourteen feet, the six feet nearest the surface consist of alluvial deposit, embracing irregularly inbedded masses of conglomerate; underneath this are three feet of horizontal strata of sandstone from one to two inches in thickness, and then five feet of sandstone varying in hardness. The bed of the river consists of conglomerate coarser in grain than the masses found in the higher parts of the bank. The fall in the bed of the river is rapid. During the rainy months the floods are so heavy that it is very difficult to cross. But in the fair weather the stream dwindles down to a succession of pools. Its waters are not used for irrigation, and though the tidal wave is felt for some miles up its channel, there is not depth enough to allow of the passage of the boats.

Tapi (Its tributaries)

The Tapi:—The south-eastern extremity of the new Broach district touches the Tapi, the second important river of South Gujarat, over a small reach near Sagbara. * Here, the river still flows through the hilly and rather inaccessible tracts of the Satpudas and Sahyadries complex. A little to the south-west of Sagbara, the *Tapi* develops a marked south-western course and drains the Songadh lands of the Surat district. In the Sagbara reach only the right bank lies in the Broach district, the left belonging to the Surat district. The *Tapi* drainage in Broach district is almost a southern counterpart of the Karjan drainage. Three more important streams drain this part of the district; the *Dudan* rises in the eastern slopes of the Nanchhal hills, from which there is almost a radial drainage pattern developing, and flows south-east to drain the Sagbara lowlands and joins the *Tapi* at Umerda in the Songadh taluka of the Surat district. The *Ajan* rises in the centre from the Nanchhal heights, close to the source of the *Karjan* and drains a fairly large hilly area and empties its turbid, though seasonal, waters into the *Tapi* at Magatrav about twelve miles above Mandvi in the Surat district. The Vari rises in the south-west cornor of the southern hills, flows for about twenty five miles to the south-west and joins the *Tapi* about five miles above the town of Bodhan in the Surat district. It is to be noted that only the upper drainage areas of these tributaries of the *Tapi* river lie in the Broach district.

Drainage-other forms.

Though its rivers are the chief natural features of the Broach plain, the height of their banks, upto which the whole country slopes, prevents the rivers from effectually carrying off the surplus waters of local floods. For drainage purpose the district is, therefore, to a great extent, dependent on creeks or back-waters running inland either directly from the coast line, or from the banks of rivers at points in their course below the line of tidal influence.

Back waters

Of the salt-water creeks or back-waters, the three most important are the Mota, breaking off from the Dhadhar river about six

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* For a detailed account of the Tapi, see Surat District Gazetteer (revised).

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miles west of the town of Amod; the Bhukhi, running inland from the right bank of the Narmada, about fifteen miles west of the town of Broach; and the Wand, an inlet from the shore of the Gulf of Cambay, about eight miles north of the mouth of the Kim river.

Back waters. The Mota.

The back-water, known at its mouth as the Mota, becomes, about three miles further up, the Achhod creek, and after five miles more, where it is crossed by the high road from Broach to Amod from the name of a village on its bank it is known as the Nahier creek. In the dry season the tidal waters are the only difficulty in crossing this creek. This difficulty is removed by a rough earthen embankment thrown across at a trifling expense by the people of the neighbouring villages. In the rains this causeway is washed away, and the creek becomes a formidable river, to be passed by swimming, or on a raft buoyed up by empty earthen jars.

The Bhukhi.

The Bhukhi back-water drains the Broach sub-division. Between the villages of Kelod and Dhadra, about sixteen miles from its mouth, where it is crossed by the Broach and Amod road, the bed of the Bhukhi forms a deep basin, in which a little water remains throughout the year. During the fair season the Bhukhi is crossed by a rough earthen causeway. In the wet season it becomes a very deep river, passed by a few travellers either by swimming or seated upon bedsteads supported by earthen jars. Four miles further down the Bhukhi is joined on the left by the Kari, and after this its bed stretches out a considerable breadth. In the dry season this channel is crossed by a cheap earthen embankment, which, though strong enough to stop the tidal waters, is swept away by the first rainfall. Eight miles further on the Bhukhi receives two more tributaries; on the left the Ganwa, draining the south-west corner of the Broach sub-division and from the right the Bhan, whose streams pass inland to near the town of Wagra. Beyond the point, where it is joined by these two streams the Bhukhi, by the time it falls into the estuary of the Narmada, has become a large inlet of the sea, especially at high spring tides, when broach tracts of land on either side of its regular channel are covered. At low water carts can cross, and at full tide there is ferry for passengers.

The Wand.

The Wand drains the central part of the Ankleshwar sub-division and falls into the Gulf of Cambay about eight miles north of the Kim river. This creek is at all seasons of the year a great impediment to traffic.

The Minor Creeks.

The remaining creeks and water-courses are as follows:—In the Amod sub-division, a water course between the villages of Bodka and Tanchha; close to village Achod, there is a back-water difficult to pass even at low tide; and in the east of the sub-division a troublesome crossing between the villages of Mesral and Ikhar; and further in Wagra, the Badalpur creek near the village of that name. In Broach sub-division there are four small

CHAPTER — Physical Features. RIVERS. The Minor Creeks.

creeks or water-courses. On the Broach and Amod road between Diadra and Derol; on the Baroda road near the village of Sitapan; at Kantharia, about two miles north of Broach; and on the right bank of the Narmada, about six miles above Broach, between Tavra and Karod, is a wide water-course with a small tidal channel at high-water hard to cross. In the Ankleshwar sub-division, the Amla, about a mile west of the town of Ankleshwar, passes north-ward to the Narmada, and on its way, near the villages of Diwa, Pangam, and Sajod, forms creeks at high tide difficult to pass.

* GEOLOGY. Introduction

The Broach district including the recently merged areas is bounded to the north by the south-easterly flowing Mahi river, to the east by the western Satpuras, to the south by the Kim and Tapi rivers and to the west by the Arabian Sea. Being made up of more or less deltaic and alluvial portions of land on the north, south-west and west, the configuration of the area here is more or less flat with a gentle slope towards the sea, *i.e.*, the west. The eastern tract is more or less hilly with towering peaks towards the eastern margin of the district.

The recent alluvial tract to the north and west of the district consists of the silt and sand of the Narmada and Mahi rivers and the shore deposits of the sea coast. The tract is usually covered with the highly fertile black cotton soil and fine sand of the shore deposits forming sand hills fringing the coast. This is noticed on both banks of the Narbada river from its mouth at Alia Bet up to Gora in the Rajpipla division, a distance of nearly 70 miles. The same phenomenon is seen along the banks of the Mahi and Kim rivers. This alluvium whose thickness would aggregate to several hundred feet covers rocks of Teritiary age, and forms the low ground together with the banks of the larger streams which are some distance away from the sea. It is composed of a fine, light coloured, argillaceous loam, occassionally pebbly or gravelly. Usually it is amorphous with numerous nodules of impure carbonate of lime *(kankar)*, but at times it exhibits lines of stratification. Numerous beds of sub-recent conglomerates with a calcareous cementing matrix underlie this alluvium. The alluvium consists of alternating beds of clay and silt. These beds are lenticular and hence do not persist over large areas. This fact is borne out by the bores taken in the area.

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* This is copy of "A Note on the Geology of the Broach District (July 1950)" by Shri B. F. Mehta, Assistant Geologist, Geological Survey of India.

The earliest references to the geology of the tract is by Blandford, entitled "On Geology of the Taptee and Lower Nurbudda Valleys", Memoir, G. S. I., Vol. VI, Part 3, 1867. Later P. N. Bose carried out geological investigations in Rajpipla State and his "Notes on the Geology and Mineral Resources of the Rajpipla State" are incorporated in Record, G. S. I., Vol. XXXVII, Part 2, 1908-09. Dr. M. R. Sahni, in "Agates and other forms of Chalcedonic Silica; their origin, distribution and economic possibilities (with particular reference to Rajpipla State)" — Indian Minerals, Vol. II, Part 4, 1948, has reported on the agates of Ratanpur. The district is being re-examined in recent years by the Geological Survey of India.

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GEOLOGY.

The Tertiary rocks are spread in gentle undulations over some portion of the district from a little north-east of Jhagadia up to the Tapti river of south of Velachha. These rocks appear sporadically as inliers to the west of the Western Railway. The lower beds usually comprise a sandy and impure fossiliferous limestone abounding in Nummulites. These rest on laterite and lateritic clays; the nummulitic series of rocks also includes agate conglomerates which are of considerable thickness. The upper beds consist of gravels, with a good amount of agate pebbles, sandy clays and calcareous sandstones. The sandstones are usually white but are occassionally tinted red or brown. They are massive, coarse and are at times conglomeratic, exhibiting false bedding. Owing to the numerous instructions of the Deccan trap which intersect them throughout the area, the sandstones and the limestones have been considerably altered into quartzites and marbles respectively. From their inclination and extent for some miles it seems that the aggregate thickness would be several thousand feet. On the Deva river the scraps show 800 feet of these sandstones.

According to P. N. Bose, four inliers of the Cretaceous rocks are met with in the Gardeshwar *mahal* of the Rajpipla division; two are located north of the Narbada river, one extending from Nasri and Valpur westwards to Sultanpur and the other from Limkhetar southwards to Vanji. The other two inliers are noticed between Vadgam and Mokhadi, and between Limdi and Gora.

The thickness of the limestones is not as great as that of the sandstones. Both these rocks types have been disturbed resulting in faulting, crushing and twisting.

West of the Tertiary outcrops the area is covered by the Deccan lava flows of Eocene age. The flows vary from hard, compact, holocrystalline to porphyritic basalts to much weathered greenish or purplish coloured amygdular traps with infillings of quartz, calcite, zeolites and chalcedony. These lava flows cover the whole of Dediapada and Sagbara and parts of Nandod Jhagadia and Valia *talukas*. Similarly the whole area east of Velachha inclusive of the Mandvi *taluka* is covered by trap flows. Some tuffs are noticed near Rajpipla and to the south of Mota Amba. Three prominent exposures of trachytic rocks are seen at Karia hill, Asnavi and between Pathar and Koylivav. The trachytic rocks appear to have intruded the trap flows. Crystalline trap dykes orientating in an east-west direction abound in the trap region. Veins of cacite or a mixture of calcite and quartz are encountered at many places in the trap region.

Economic Geology.

The following minerals are reported to occur in Broach district :—

Agates :—The biggest source of carnelian and agate stones is in Ratanpur in Rajpipla division. The lapidaries of Cambay in Saurashtra have been known to use these stones since centuries.

While the agate pebbles normally occur as conglomerates and gravels, they can also be picked up in large quantities in the fields, in river beds and on the hill slopes; they are in all cases the result of disintegration of deposits of which originally they were components. Between 1913-17, the output was about 1,000 tons. Under proper supervision and with modern mining methods, production could be increased manifold. Rolled pebbles of agates could be employed as grinding agents in ball mills for reducing clays to fine powder, and also for grinding paint materials. Amongst other uses of agates are the manufacture of pestle and mortar out of larger pebbles and for making articles requiring immunity from reactions with certain acids, or as fulcra for chemical balances

Bauxite :—Alluminous laterite occurs between Bhilor and Valia in Rajpipla division. The occurrence is not of any economic importance.

Building stones :—The trap rocks from the south-eastern portion of Rajpipla division could be used as building stones and aggregate for concrete.

Calcite :—Fairly big veins of calcite are noticed near Sajanva, Ambakhadi and Amaljhar villages. Small stringers are also seen between Tejpur and Rupaniya, at Vali, Bamanfalia and near Khadagda. The calcite from these localities is estimated at about 3,200 tons. It may be used for making lime and wall plaster for local use.

Calc tufa :—Small lenticular deposits of calc tufa are met with at many places in the Rajpipla division. The notable ones are those occurring near Ambakhadi, Rakhaskundi, Bhilvasi and Tejpur. The material from these deposits is locally used for lime burning.

Clays :—Clays of different colours varying from greyish to buff are noticed to the west of Damlai, south-east of Bhilod and near Kondh. The deposit at Damlai would yield nearly 1,000 tons.

Gypsum :—A miner occurrence of gypsum is seen in the bed of Amravati river near the village of Bhilod.

Iron-ore :—Iron-ore of lateritic origin is distributed over a fairly big area in the valia *mahal*. Although at places the nodules of iron show a good percentage of haematite, yet on the whole the material does not promise to be of any economic use.

Limestone .—Grey and slate coloured limestones of Cretaceous age form knolls and hillocks covering an area of about half a square mile to the south of Vanji in Gardeshwar *mahal* of Rajpipla division. Another occurrence of a flaggy, grey coloured limestone occurs south-east of Gora. This deposit runs across the Narmada but thins out on the opposite bank near Limdi village. About 70,00,000 tons of limestone might be available from these deposits. Other smaller outcrops of Tertiary limestone are met with in Valia *mahal* and to the west of it. These are however, too small in extent to be of any economic use.

HAPTER 1.

Physical Features. Economic Geology.

Natural gas:—According to Dr. B. C. Roy who recently reported on the occurrence of natural gas at Hazat near Ankleshwar the substance is derived from organic matter buried in recent alluvium and in concealed Teritiary beds and does not appear to indicate the presence of oil.

Oil and Natural Gas.—As a result of the drilling operations carried out by The Oil and Natural Gas Commission a large belt of oil has been discovered (1960) near Ankleshwar. A brief account of the 'Oil-find' has been given separately in the supplement at page 53A.

Ochres:—Red ochre occurs in lenticular patches of small extent in the cultivated fields around Padvania. Lying under a mantle of soil about 12 feet deep, the thickness of the layers average 2-3 feet. It is only in *nala* banks that it is possible to encounter this material. Most of the ochre has already been removed for local use.

Water supply:—The tract called *bara,* along the sea shore is subjected to tidal effects all the year round. The wells vary in depth from 15-50 feet; the water table varies from 6-24 feet from the surface. Percolation wells in this area are mostly brackish. Only wells sunk in the tank beds and on blown sand hillocks usually contain potable water. A few 80-100 feet deep bores in the village of Abrham, Panar, and Chijgam are known to have yielded potable water. The recent bores for mitigating the water scarcity in parts of *bara* tract did not yield any encouraging results. Along the river banks there is usually enough water supply in the wells for domestic as well as for some agricultural use.

CLIMATE.

The year may be divided into (1) the winter season, November to February, (2) the hot season from March to May, (3) the south-west monsoon season, June to September and (4) the transition month October. The winter season is characterised by clear skies and cool northerly winds. Mornings are chilly and occasionally the cold is very severe. The minimum temperature on individual days may be 40°F or lower. Frosty conditions may occur once in about 10 years. The wind direction is mainly between N and E for the the greater part of the day except in the afternoon when, on account of the sea-breeze at the coastal stations, westerly winds prevail. The westerly winds set in by about two to three o'clock in the afternoon and continue till late in the evening. In the hot season which begins towards the close of February temperature shoots up and maximum temperatures of the order of 110°F are not uncommon, even in the month of March. It goes on steadily increasing and temperatures of the order of 115°F or higher are recorded sometimes during the period, April to June. The usual convective phenomena of summer months giving rise to thunder-showers are practically absent. A thuderstorm may occur once in three years. The lack of thunderstorm activity is a characteristic feature of the coastal districts of Gujarat.

CHAPTER — Physical Features. CLIMATE.

The hot season practically continues till about the middle of June when the onset of monsoon takes place. The westerly winds dominate from April and last till the end of September. The rainy season is from June to September. July is the rainiest month getting nearly double the rainfall in June and August. Every two out of three days are rainy days in July with 1 cent or more. The average annual number of rainy days with 10 cents or more is about 40, July and August accounting for about 50 to 60% of these. 90 to 95% of the annual rainfall occurs during the months June to September and if October is also included nearly 98% of the annual rainfall occurs during June to October.

The monsoon withdraws generally towards the end of September although October gets about 1 to 2″ rainfall. The remaining months are practically dry. The months, October to December, however, have heavy dews and " these are said to be not insufficient for the wants of the flat absorbent and imperfectly drained surface of the black soil". Temperature again rises in October and values of the order of 106°F have been recorded. The average temperatures are generally higher by 3° to 5°F in the hot season and colder in the winter by 2° to 4°F than in areas to the south. On the whole, the climate of the district is as healthy as that of any part of Gujarat and is much more pleasant than parts of this area situated farther from the sea.

Rainfall.

The various meteorological elements will now be described in greater detail.

The study of rainfall of the district is based on the available data of the thirteen rain guages in the district, eight being in the Broach Division and the remainder five in Rajpipla Division. For all stations in Broach Division excepting Dahej, data of over 50 years are available. In the case of Rajpipla Division, however, excepting at Rajpipla, the other stations have only data of 17 years ending with 1950.

Table I gives the monthly and annual rainfall of all the rainguages in the district based on records up to 1940. The table also includes the number of rainy days (of 10 cents or more) and also the average monthly percentage of rainfall of the annual .

As the averages in table I are based on data of different periods ending with 1940, the annual normals only have been worked out, based on data up to the end of 1950. In table II these means are given along with the frequency distribution of annual rainfall and the extremes.

The average annual rainfall of the whole district is 36.7″. The average annual rainfall of Broach division is 32.2″ while that of Rajpipla division is 43.7″. Rainfall increases from 27″ or less along the coast to 48 to 50″ in the east. The southern and western area of Rajpipla division is the rainiest part of the district The

CHAPTER 1. Physical Features. CLIMATE. Rainfall.

number of rainy days with 10 cents or more varies from 30 days along the coast to about 60 in the east. Dehej with an annual average of 27.7" and 34 rainy days near the coast is the least and Valia and Dediapada are the rainiest with over 48" rainfall and 50 to 60 rainy days.

The chief feature of rainfall of the district is that over 90% of the annual rainfall is concentrated in the monsoon months June to September and inclusive of October the percentage rises to 96 to 98.

July is the rainiest month, accounting for 36 to 40% of the annual rainfall. August is the next rainiest month accounting for about 20.% June and September account for 15 to 20% each. October is 4 to 5%. Little or no rain occurs (less than 1") in all the other months.

Although rainfall over most of the district is much higher than 30", the variability of rainfall is over 30%. It ranges from 32% to 38% in Broach division and upto 45% in Rajpipla division. The variability of Broach and Rajpipla is 37%. The variability of Broach division as a whole is 30%.

The variability is, however, very much higher for individual months. Broach has a rainfall record of over 80 years and the variability for each of the rainy months June to October is given below.

—	June	July	Aug.	Sept.	Oct.
Mean (inches)	6 56	14.22	7.38	6.54	1.35
Standard Deviation	6.00	8.62	5.2	5 62	2.66
Coefficient of Variability	91	61	68	86	197

Even for July which is the rainiest month, the variability is as high as 61%.

Rainfall departures:—Nearly half the district has had years when the total annual rainfall was less than 10". The lowest recorded is 6.9" at Jambusar in 1948. In the same year, Hansot recorded 7.5" and Ilav 9.5". About 10 to 15% of the years (1901 to 1950) have had rainfall less than 20" This frequency is a maximum in the coastal area where it is as much as 25% of the years.

The following table shows the years during 1901 to 1950 when the annual rainfall in each of two or more consecutive years was less than 90% of average and less than 75% of average respectively.

TABLE 1

NORMAL MONTHLY AND ANNUAL RAINFALL

(a) Normal Rainfall in inches.

(b) Monthly Rainfall as % of the annual.

(c) Normal Number of Rainy Days (A rainy day is one of 0.10″ or more).

The following table gives the means along with the frequency distribution of annual rainfall and the extremes.

		Jan	Feb	Mar	Apr	May	June	July	Aug.	Sept.	Oct	Nov	Dec	Annual
Broach ..	(a)	0.14	0.07	0.02	0.02	0.21	6.61	14.19	7.47	6.08	1.42	0.42	0.02	36.71
(63 years)	(b)	0.4	0.2	0.1	0.1	0.6	18.6	38.7	20.3	16.6	3.9	0.7	0.1	
	(c)	0.2	0.1	0.1	0	0.4	0.8	14.1	10.6	7.1	1.7	0.5	0.1	41.7
Ankle-shwar .	(a)	0.12	0.08	0.01	0.01	0.22	6.93	14.73	7.12	5.83	1.49	0.30	0.04	36.88
(62 years)	(b)	0.3	0.2	0	0	0.6	18.[illegible]	39.9	19.3	15.8	4.0	0.8	0.1	
	(c)	0.2	0.2	0		0.4	6.7	14.6	10.9	7.2	1.7	0.5	0.1	42.5
Hansot	(a)	0.13	0.06	0.04	0.01	0.13	6.11	12.02	6.42	4.88	1.2	0.30	0.07	31.45
(53 years)	(b)	0.4	0.2	0.1	0	0.4	19.4	38.2	20.4	15.5	4.1	1.0	0.2	
	(c)	0.2	0.2	0.1		0.3	6.1	12.5	8.6	6.2	1.4	0.4	0.1	36.1
Ilav	(a)	0.17	0.09	0.03	0.02	0.16	6.50	13.23	6.28	4.72	1.18	0.31	0.06	32.75
(53 years)	(b)	0.5	0.3	0.1	0.1	0.5	19.8	40.4	19.2	14.4	3.6	0.9	0.2	
	(c)	0.2	0.2	0.1	0	0.2	6.9	14.3	10.2	6.7	1.6	0.5	0.1	41.0
Vagra	(a)	0.08	0.06	0.03	0	0.12	5.37	12.11	6.61	5.48	1.42	0.29	0.06	31.59
(63 years)	(b)	0.3	0.2	0.1	0	0.4	17.1	38.3	20.9	17.3	4.5	0.7	0.2	
	(c)	0.1	0.1	0.1	0	0.3	5.8	13.3	9.7	6.7	1.8	0.4	0.1	38.4
Dehej .	(a)	0.12	0.05	0.01	0.03	0.23	5.26	10.09	5.77	4.27	1.38	0.35	0.13	27.69
(35 years)	(b)	0.4	0.2	0	0.1	0.8	19.0	36.4	20.8	15.4	5.0	1.3	0.5	
	(c)	0.1	0.1	0	0.1	0.4	5.9	11.5	8.2	5.3	1.4	0.5	0.1	33.6
Amod	(a)	0.10	0.04	0.07	0.03	0.14	5.41	12.89	7.17	6.01	1.21	0.23	0.04	33.34
(63 years)	(b)	0.3	0.1	0.2	0.1	0.4	16.2	38.7	21.5	18.0	3.6	0.7	0.1	
	(c)	0.2	0.1	0.1	0.1	0.3	5.7	12.7	9.7	6.5	1.5	0.4	0.1	37.4
Jambu-sar	(a)	0.07	0.06	0.05	0.05	0.12	5.03	12.39	7.36	5.33	1.07	0.21	0.05	31.81
	(b)	0.2	0.2	0.2	0.2	0.4	15.8	38.9	23.2	16.8	3.4	0.7	0.2	
(63 years)	(c)	0.1	0.1	0.1	0.1	0.3	5.4	12.9	9.8	6.3	1.3	0.4	0.1	36.9
Raj-pipla	(a)	0.13	0.11	0.05	0.02	0.34	6.52	13.52	8.92	6.31	1.24	0.41	0.13	37.70
	(b)	0.3	0.3	0.1	0.1	0.9	17.3	35.9	23.7	16.7	3.3	1.1	0.3	
(53 years)	(c)	0.2	0.2	0.1	0.1	0.6	0.9	15.6	13.0	7.8	1.6	0.5	0.2	46.8
Bhalod .	(a)	0.05	0.04	0	0	0	6.43	13.78	7.60	7.40	1.63	1.26	0.07	38.26
(7 years)	(b)	0.1	0.1	0	0	0	16.8	36.0	19.9	19.3	4.3	3.3	0.2	
	(c)	0.3	0.3	0	0	0	8.0	14.6	9.4	7.3	1.4	1.3	0.1	42.7
Valia	(a)	0.04	0.11	0.02	0	0.03	8.49	16.82	9.95	8.02	1.99	0.94	0.01	46.42
(7 years)	(b)	0.1	0.2	0	0	0.1	18.3	36.2	21.4	17.3	4.3	2.0	0	
	(c)	0.1	0.4	0	0	0.1	9.6	17.1	11.4	9.0	1.4	1.3	0.1	51.4
Dadia-pada	(a)	0.02	0.10	0.06	0.19	0.03	11.46	15.88	11.43	7.86	2.29	0.73	0.03	50.08
	(b)	0	0.2	0.1	0.4	0.1	22.9	31.7	22.8	15.7	4.6	1.5	0.1	
(7 years)	(c)	0	0.4	0.1	0.4	0.1	10.6	20.6	15.0	10.4	1.3	1.3	0.1	61.2
Garde-shwar .	(a)	0.04	0.05	0.03	0.07	0.08	7.65	13.15	7.24	6.53	2.01	0.94	0.05	37.84
	(b)	0.1	0.1	0.1	0.2	0.2	20.2	34.7	19.1	17.3	5.3	2.5	0.1	
(7 years)	(c)	0.3	0.3	0.1	0.3	0.4	7.9	15.9	11.1	8.3	1.3	1.4	0	17.4

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Rainfall.

TABLE 2

Rainfall in inches.	Broach District — Broach Division								
	Broach	Ank'le-shwar	Hansot	Ilav	Vagra	Amod	Jambu-sar	Dehej	Mean of Broach Dn. based on all stati-ons exclu-ding Dehej.
5.1-10	—	—	2	1	—	—	2	1	—
10.1-15	3	3	2	—	3	2	3	4	4
15.1-20 ..	4	2	4	4	6	6	3	6	3
20 1-25 ..	3	4	4	6	6	5	8	8	2
25 1-30 .	10	3	8	10	8	8	9	6	8
30 1-35 ..	8	8	12	12	10	13	12	13	11
35.1-40	6	10	5	3	3	5	7	2	10
40.1-45 .	7	9	4	9	7	4	1	3	7
45.1-50 .	3	5	5	3	5	5	3	1	3
50.1-55 .	2	2	1	1	2	—	2	1	2
55 1-60 .	2	2	3	—	—	1	—	—	—
60.1-65 ..	2	2	—	1		1	—	—	—
Total .	50	50	50	50	50	50	50	45	50
1901-50 : Mean .	34.53	36 85	32.77	32 57	31.85	32.47	29 36	27.75	32.71
Standard Deviation(σ	12.80	11 63	12.53	10 38	11.02	12.07	10 47	9.46	9.96
Coefficient of Variability.	37.1	31.6	38.2	31.9	34 6	37.2	35.7	34.1	30.4
Highest	63.15	61 46	59 89	63 66	54.75	61.06	54.98	50.47	54.99
Year ...	1947	1946	1917	1946	1945	1942	1927	1917	1945
Percentage of Mean. ..	183	167	183	195	172	188	187	182	168
Lowest .	11.20	12.61	7.54	9.50	11 48	6 90	10.80	9.27	11.25
Year .	1923	1923	1948	1948	1918	1948	1948	1923	1948
Percentage of Mean. .	32	34	23	29	36	33	23	33	35
Heaviest rainfall in 24 hrs. ...	19.82	15.58	12.87	11.50	12 04	15 55	13.62	14.56	
Dae ...	26-7-1896	26-7-1896	26-7-1896	3-7-1931	29-7-1891	5-8-1942	24-9-1945	26-6-1922	

TABLE 2 *(Continued)*

Rainfall in inches	Broach District — Rajpipla Division				
	Rajpipla	Bhalod	Garde-shwar	Dediapada	Valia
5.1-10	1	—	—	—	—
10.1-15	—	1	—	—	—
15.1-20	1	—	1	—	—
20.1-25	3	—	—	—	—
25.1-30	9	2	2	2	1
30.1-35	11	2	4	—	3
35.1-40 ...	6	5	—	2	1
40.1-45	5	1	4	2	2
45.1-50	5	2	2	3	4
50.1-55	4	2	1	1	—
55.1-60	1	—	—	4	1
60.1-65	3	—	1	1	3
65 1-70	—	—	—	—	—
70.1-80	—	1	—	1	—
80 1-90	—	—	2	—	2
90.1-100	1	1	—	1	—
Total	50	17	17	17	17
Mean	38.74	43.19	44.20	51.11	50.05
Standard Deviation(σ) ...	14.34	19.21	18.96	16.17	17.30
Coefficient of Var ability ...	37.0	44.5	42.9	31.6	34.6
Highest	82.36	96.98	89.99	90.67	86.34
Year	1945	1942	1942	1942	1945
Percentage of Mean	213	225	204	177	173
Lowest	8.60	11.33	19.55	25.82	26.99
Year	1918	1948	1948	1948	1948
Percentage of Mean	22	26	45	51	54
Heaviest rainfall in 24 hrs. ..	20.36	14.04	10 50	11.68	15.80
Date	28-6-1913	24-9-1945	24-9-1945	30-6-1937	23-9-1945

TABLE 3

The following table given below shows the years when the rainfall was less than 90% and less than 75% of the normal.

Broach	Ankleshwar	Hansot	Ilva	Vagra	Amod	Jambusar
Less than 90./· of normal						
1904–05 1922–25 1932–38 1940–41 1948–49	1904–05 1923–24 1935–36	1904–05 1933–36 1940–41	1903–05 1918–19 1928–29 1948–50	1904–05 1934–35 1948–49	1904–06 1918–20 1922–25 1934–35 1938–39	1901–02 1904–05 1918–20 1922–23 1935–36
Less than 75·/. of normal						
1904–05 1923–24 1935–36	1904–05	1904–05		1904–05	1904–05 1918–20	1904–05

Dehej	Rajpipla	Valia	Dadiapada	Bhalod	Gardeswar
Less than 90./· of normal					
1908–09 1918–20 1935–36 1942–44	1904–05 1907–08 1918–20 1922–25 1928–29 1934–36 1947–49	1934–36 1947–48	1935–36 1947–48	1935–36 1947–49	1935–36 1947–49
Less than 75·/. of normal					
	1904–05 1948–49	1947–48	1947–48		1935–36 1948–49

Two or more consecutive years when rainfall was less than 90% of the normal have occurred on a number of occasions in the case of almost all the stations but the number of occasions of two or more consecutive years when the annual rainfall in each of them was less than 75% of the normal are very few, 1904-05 being the common years in almost all of them. The figures of annual rainfall of the various stations show that good or bad rainfall at any station is also an indication of similar conditions at the other stations in the district though not proportionately with regard to the amounts of rainfall. This is another important feature of rainfall of the district. As instances may be mentioned the years 1904-05, 1923 and 1948 when all the stations received very low rainfall and the years 1945 to 1947 which were years of good rainfall. A similar feature is noticed in the case of heavy rainfall in 24 hours. Some of the instances are given below :—

		Broach	Ankleshwar	Hansot	Vagra
1891 July	29th	17.09	11.94	10.42	12.04
1945 September	23rd	6.35	6.20		6.26
,,	24th	10.03	11.17		11.17

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Table 2 includes the extreme values of annual rainfall for each of the stations based on available data for the period 1901 to 1950. The highest value has varied from 167 to over 200% of the normal. The lowest has varied from 23 to 36% of the normal, if stations with data for less than 50 years are excluded. The highest annual rainfall may not exceed two and half times the normal or fall below a fifth of the normal. These limits may be regarded as the extreme limits of annual rainfall.

Heaviest rainfall in 24 hours:—Very heavy rainfall in the district occurs mainly in association with depressions passing over or near the area or with very strong monsoon. The last row of table 2 gives the heaviest rainfall recorded in 24 hours, based on data up to 1950.

The district gets very heavy rainfall on individual days during the monsoon period which may be as much as 20″ or more. Rajpipla has recorded the highest rainfall of 20.36″ and Broach 19.82″ as the next, in 24 hours. All the stations have recorded more than 10″ in 24 hours. The following table gives the frequency of heavy rainfall of 3″ or more in 24 hours.

TABLE 4

Station	No of Years	3″ to 4″	4″ to 5″	5″ to 6″	6″ to 7″	7″ to 8″	8″ to 9″	9″ to 10″	10″ to 11″	11″ to 12″	12″ to 13″	13″ to 14″	14″ to 15″
Broach ..	30	35	12	8	2	3	1	2	1	1			
Ankleshwar	30	26	13	5	4	2		2		1	1	1	
Hansot	30	18	18	6	2	3	1	1	1		1		
Ilav ..	30	24	9	5	3	1	1	1					
Vagra ..	30	24	13	5	5	3		1			1		
Dehei	14	10	1	2	3				1				
A'mod ..	30	25	8	7	4	2							
Jambusar ..	30	19	11	4	3	2	1	1	1				
Rajpipla ..	30	23	12	9	1	6	2			1		1	

(The above table is based on available data from 1891 to 1920).

According to this table, each of the stations gets on an average one to two heavy falls of 3″ or more in a year. Falls of 10″ or more are likely once in ten or fifteen years.

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TABLE 5

FREQUENCY DISTRIBUTION OF DAILY RAINFALL (ANNUAL)

Inches	Broach	Rajpipla
0.01 — 0.10	19.5	27.2
0.11 — 0.20	8.4	10.2
0.21 — 0.50	11.1	13.6
0.51 — 1.00	8.2	9.1
1.01 — 2.00	5.6	7.0
2.01 — 3.00	1.8	2.6
3.01 — 4.00	0.9	1.0
4.01 — 5.00	0.1	0.6
5.01 — 6.00	0.2	0.3
6.01 — 7.00	0.2	0.1
7.01 — 8.00	0.2	0.1
8.01 — 9.00	0.1	0
9.01 —10.00	—	0
10.01 —11.00	0	0
11.01 —12.00	—	0
Total number of days in a year with 1 cent or more.	56.3	72.1

The above frequency table of daily rainfall is based on data for the years 1921-1945.

The average rainfall per rainy day is 5″ to 6″ in this district. Although this is the average amount associated with each fall, rainfall on about 50% of the rainy days is 20 cents or less. Falls of 50 cents or less account for less than a sixth of the total rainfall of the year, though these form about 70% of the total number of rainy days. Of the 56 days of rainfall in a year at Broach, falls on 17 days account for 27″ out of the annual average of 32″. In the case of Rajpipla 21 falls account for 32″ out of a total of 38″. The above tables serve to indicate clearly that a few heavy falls account for the total annual rainfall while the majority of the falls are of less than ½″. Also, one to two heavy falls of over 3″ are likely in each year.

Broach is the only station in the district which has temperature data and even these are limited to a period of about 3 years. Temperature begins to rise towards the end of February and maximum temperatures of 100°F or over are frequent in March. May is the hottest month of the year with an average maximum temperature of about 103°F. The setting in of the monsoon in the second week of June is accompanied by a large fall in temperature. Next to January which is the coldest month of the year, August has the lowest mean maximum temperature of 89°F. With the withdrawal of the monsoon towards the end of September, temperature again rises to 100°F and there is a secondary maximum in October. The annual mean maximum temperature is 96°F. As has already been mentioned, the area is one of high temperatures. Excepting August and January, the other months have recorded maximum temperatures of 100°F or more. In March, temperatures over 110°F have been recorded and even with a three-year record, the higest maximum temperature of 114°F has already been recorded. Temperatures over 115°F are not uncommon over this hot area.

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Minimum temperature — The mean annual minimum temperature is 70°F. January is the coldest month of the year with an average of 55°F. The lowest minimum temperature recorded so far with a three-year record is 45°F but minimum temperatures of 40°F and lower over the area are likely.

TABLE 6

MEAN OF DAILY TEMPERATURE, °F

Mean (of)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Annual
Daily Max.	88.5	94.9	100.3	102 6	103.1	96.7	90 8	88 6	94 8	100 3	96.9	92.5	95.7
Daily mini.	54.7	59.7	68.0	75.2	80.4	81.2	78.8	77 9	76 0	73.3	63.7	57.7	70.3
Highest Maxi.	97	109	110	114	112	112	100	94	107	107	102	99	114
Lowest Mini.	46	45	58	61	74	73	74	73	71	65	54	52	45
Diurnal Range	33.8	35.2	32.3	25.4	22.7	15.5	12.0	10 7	18 8	30.0	36.2	34.8	25.2

(Table based on data from 1951 to 1953)

The average diurnal variation of temperature is a maximum in the winter months, the highest being in November with about 36°F. Variations on individual days may be 40°F or more. The variation is least in the monsoon months, the average value being about 11°F.

Humidity.

Relative humadity is maximum in the early morning and minimum in the afternoon Humidity in the morning varies from about 60% in the winter months to about 85 to 90% during the monsoon months. On individual days in the monsoon months it may be even 100%. In the afternoon it varies from 20 to 25% in the months November to March and is about 70% in July and August. It is lowest in the winter months.

TABLE 7

RELATIVE HUMIDITY (%)

	Jan	Feb.	Mar.	Apr.	May	Jun.	Jul	Aug.	Sep	Oct	Nov.	Dec
0830 hrs. I. S. T. ..	61	58	59	69	77	81	87	89	81	78	58	58
1730 hrs. I. S. T. ...	24	27	20	29	40	64	74	72	47	39	23	25

Clouds.

The period November to May is practically clear or cloudless, cloudiness being one tenth of sky or less. It is about 6 to 7 tenths during the months of July and August and 4 to 5 tenths during June and September. This district is an area where cloud amount is very small except in the monsoon months.

TABLE 8

MEAN CLOUD AMOUNT (IN TENTHS)

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
0830 hrs. I. S. T. ...	0.9	0.9	1 3	1.1	1.4	5.3	7.1	7.4	3.4	1.9	0.7	1.1
1730 hrs. I. S. T. ...	1.1	0.4	1.1	1.1	0.3	3.9	6.9	6.9	4 0	2.1	1.0	1.3

Surface Wind

The surface winds are mainly easterly during November and December and northeast during January and February. Southerly or westerly winds predominate in March, April and May. During the monsoon months June to September westerly winds prevail. October is a transition month with variable winds. There is no marked diurnal variation of wind except during February to May when westerly winds set in, in the afternoon.

The mean daily wind velocity is highest in May and June (7 to 8 m. p. h.) and lowest in November (2 to 3 m. p. h.). Strong winds which may rise to 80 to 100 m. p. h. may occur in association with storms and depressions over or near the area.*

Storm of 1781

In the year 1781 a storm passed over the district of Broach, of which Mr. Forbes has left and account in his Oriental Memoirs : "Two years before I left India, some weeks previous to the setting in of the south-west monsoon (May), we had the most dreadful storm ever remembered in Gujarat. Its ravages by sea and land were terrible, the damage at Broach was very great, and the loss of life considerable. The storm came on so suddenly, that a Hindu wedding party passing in procession through the streets by torch-light with the usual pageantry of palanquins, led-horses, and a numerous train of attendants, were overtaken by the tempest, and fled for shelter into an old structure, which had for ages withstood the rage of the elements. On that fatal night, from the violence of the winds and rain, both roof and foundation gave way, and seventy-two of the company were crushed to death. At our villa every door and window was blown away, the elements rushed in from all directions, and spoiled furniture, pictures, books, and clothes. The roof of the stable giving way, the main beam killed a fine Arabian horse, and maimed several others. The garden next morning presented a scene of desolation, strewed with large trees torn up by the roots, broken pillars, seats and ornaments, sea and land birds, wild and tame animals, porcupines, guanas, serpents, and reptiles all crushed together. Large fish from the ocean, together with those of the river, were left upon the banks, and covered the adjacent fields. One of the company's armed vessels, lately come from Bombay, was lost in the river, together with a great number of large cotton boats and other craft richly laden."

TABLE 9

NO. OF DAYS OF WIND FROM DIFFERENT DIRECTIONS

Surface Wind

	Jan.	Feb	Mar.	Apr.	May	Jun.	Jul.	Aug	Sep.	Oct	Nov	Dec.
0830 hrs. I. S.T.												
N	6	4	3	3	0	0	0	0	0	1	1	4
NE	8	7	5	2	0	0	0	0	0	4	8	10
E	4	3	3	1	0	0	1	0	1	4	5	5
SE	4	5	5	4	2	0	0	0	2	5	8	5
S	1	3	4	5	3	5	5	1	2	4	3	1
SW	2	1	5	7	21	20	19	24	16	6	2	1
W	2	[illegible]	1	3	1	3	5	5	5	2	0	1
NW	3	2	4	3	4	2	1	1	3	3	1	3
Calm	1	2	1	2	0	0	0	0	1	2	2	1
1730 hrs I. S. T												
N	6	5	3	1	0	0	0	0	0	1	3	5
NE	7	4	3	1	0	1	0	0	1	7	13	11
E	2	2	1	1	0	0	0	0	0	3	2	2
SE	3	1	1	1	1	0	1	0	0	1	1	1
S	1	1	1	1	1	1	1	0	1	1	1	1
SW	3	6	8	12	21	26	21	29	24	13	5	1
W	2	1	6	7	2	1	6	2	3	3	1	1
NW	7	6	8	6	6	1	2	0	1	2	3	9
Calm	0	0	0	0	0	0		0	0	0	1	0

*Forbes Oriental Memoirs Vol. III, 53

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TABLE 10

MEAN DAILY WIND SPEED IN M. P. H.

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.
4.0	4.0	4.4	5.6	7.3	8.0	6.6	6.5	4.4	3.5	2.8	3.2

FORESTS.

The forests in the Broach District lie mostly in the south-eastern hills extending over an area of about 606 sq. miles and spreading over the Rajpipla Revenue Sub-Division comprising Nandod, Jhagadia and Dediapada talukas and Valia and Sagbara mahals. This area is situated between 21° 23″ and 21° 59″ north latitude and 73° 5″ and 74° 0″ east longitude and lies to the west of West Khandesh District, the hills of which are a continuation of the Satpura hills. The Narmada forms the northern boundary of this forest area and the Satpuras divide it into two sections, northern and southern. In the northern section the forests are continuous, but in the southern they are broken.

Rainfall and Temperature.

The rainfall in the area averages [illegible]″ but it varies very much from year to year, the lowest recorded being 8.60″ for Rajpipla, 25.82″ for Dediapada and 2[illegible].99″ for Valia and the highest 82.36″ for Rajpipla, 90.67″ for Dediapada and 86.[illegible]″ for Valia. Temperature records are not available for this area.

Types of Forests.

The forests are of the tropical dry deciduous type with two sub-types, one dry teak forest and the other dry mixed deciduous forest merging one into the other imperceptibly. Teak is the principal species forming about 40% of the total growing stock. The distribution varies from place to place from pure teak to pure junglewood. The composition varies with locality, altitude, aspect, soils and its moisture-holding capacity. The variation is so great that the composition alters with every few yards in some places and within the same locality different types of growths and species are met with. This is probably due to irregular felling in the past.

Species.

Teak is found growing with the following associates in the *top canopy* :—

Top-storey.

(1) *Sadad'a* (Terminalia tomentosa), (2) *Shisham* (Dalbergia latifolia), (3) *Khair* (Acacia catechu) (4) *Tanachh* (Ougeinia dalbergioides), (5) *Bio* (Pterocarpus marsupium), (6) *Kalderco* (Adinacordifolia), (7) *Kalam* (Stephegyne parviflora) (8) *Shivan* (Gmelina arborea), (9) *Humb* (Saccopetalum tomentosum), (10) *Simal* (Bombax malabaricum), (11) *Timru* (Diospyros melanoxylon) (12) *Gugal* (Boswellia serrata), (13) *Kadai* (Sterculis urens), (14) *Gol* (Trema orinentalia), (15) *Kakad* (Garuga pinnata), (16) *Modal* (Lannea grandis), (17) *Bondar* (Lagcerstroemia lanceolata, (18) *Kagar* (Acacia

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FORESTS.
Top-storey.

ferrugina), (19) *Dholikagar* (Acacia leucophloea), (20) *Karanj* (Pongamia glabra), (21) *Koshimb* (Schleichera oleosa), (22) *Behada* (Terminalia belerica), (23) *Jaman* (Eugenia jambolana), (24) *Amba* (Mangifera indica), (25) *Mowhra* (Bassia latifolia), (26) *Dhamodo* (Anoglissus latifolia, (27) *Dhaman* (Grewia tiliaefolia), (28) *Katas* (Bambusa arundinacea, bamboos) etc.

Under-storey.

(1) *Palas* (Butea frondosa), (2) *Ashitra* (Bauhiniaracemosa), (3) *Kumbhi* (Careya arborea), (4) *Aritha* (Sapindus trifoliatus), (5) *Kudi* (Wrightia tomentosa), (6) *Gali* (Randia dumentovum), (7) *Henkal* (Gymnosporia montana), (8) *Manvel* bamboos (Dendrocalamus strictus).

Hirda is a rare species, but is found in Malsamot in the Revenue area near the *gavathan*. There are only about 30 matured trees at present.

Distribution by Talukas.

Nandod Taluka : The area of the total reserved forests is 139 sq. miles forming about one-third of the total area of the taluka. The forests have been depleted within a radius of about 10 miles and the growth of inferior species with malformed teak is found generally. Gardeshwar and Junaraj are rather hilly and due to over exploitation, land has suffered, resulting in denudation. *nalas* have been cut up on both sides of the Karanj river and the river Narmada. The Dumala areas are also over-exploited. Khair was given out from the Nandod, Gardeshwar and Bhalod talukas on 10 years' contract at Re. 1/- per tree in 1918 before the merger to the Narmada Valley Chemical Industries Ltd., who have established a *kath* factory at Rajpipla and are extracting *kath*, tannin and other bi-products from Khair timber by scientific methods.

Jhagadia Taluka. Only 30 sq. miles is reserved forest in this taluka which is about one-tenth of the total area of the taluka. This is mostly lying south of the Railway line. Teak, Dhavado, Sadada are rather of poor quality compared to the interior forests. In the Ratanpore block, Akik stones are collected from Ratanpore forests and exported to Cambay for preparing beads and other fine articles for export. The royalty recovered from a co-operative society during 1952-53 was Rs. 1,000/- per *baras*.

Valia Mahal · Reserve forests in Valia Mahal is 15 sq. miles out of a total area of 254 sq. miles. The principal species growing are Teak, Sadada, Dhavado, Biyo etc., and they are of stunted growth. The density is very poor.

Dediapada Taluka : Reserved forest is about 272 sq. miles, out of the total area of the taluka, *viz.*, 398 sq miles. This area contains dense growth inspite of the fact that the area was over-exploited during State regime. Some unclassed forests contain good Teak.

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Sagbara Mahal. The total area of the *mahal* is 150 sq. miles. The forests abound mostly in revenue waste lands and are still to be demarcated. These forests were not exploited to a great extent due to lack of transport facilities and long distance to rail-head. There is cultivation amidst these revenue lands containing most of the forests, and these are being brought under settlement.

The above forests have been brought under a Working Plan and are being worked under improvement fellings during the last two years.

Minor Forest Produce.

The following is the list of chief minor forest produce :—

Apta : Bauhinia racemosa. — Leaves for *bidis*.

Bamboos : (Manvel) Dendrocalamus strictus — bamboos for hutting and *palas*, *supdas*, *toplas* etc.

Chilari . Caesalpinia — Bark for tanning.

Grass · for cattle food and grazing.

Kadaya : Sterculia Urens . Gum.

Moha : Madhuca indica — Flowers for eating and seeds for extracting oil for soap-making etc

Timru Diospyros melanoxylon — Leaves for bidis.

Chief Trees.

6. List of trees chiefly growing in this tract are given below :—

Vernacular and Botanical Names.

Ali : *Morinda tinctoria*
Alu or Alura · *Vangueria spinosa*
Amba : *Mangifera indica.*
Ambada : *Spondias mangifera.*
Amli · *Tamarindus indica.*
Aniyar : *Acacia leucophloea.*
Aola : *Phyllanthus emblica.*
Adusa : *Ailanthus excelsa.*
Arjun sadada : *Terminalia Arjuna.*
Ashan : *Bridelia retusa.*
Ashitra : *Bauhinia racemosa.*
Behada : *Terminilia belerica.*
Bak-limdo : *Melia azedarach.*
Baval : *Acacia arabica.*
Bilamo : *Semecarpus anacardium.*
Bhindi : *Kydia calycina.*
Bhangaro : *Erythrina indica.*
Bondhar : *Lagerstroemia lanceolata.*
Bhulari-kuda : *Wrightia tinctoria.*
Billi : *Aeglemarmelos.*
Bio : *Pterocarpus marsupium.*

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Bio-chhal : *Hymenodictyon excelsum.*
Bor : *Eysyphus jujuba.*
Buthkali : *Gardenia lucida.*
Chandan : *Santalum album.*
Charoli : *Buchanania latifolia.*
Chambuli : *Bauhinia variegata.*
Dandosi : *Dalbergia lanceolata.*
Dhadak manji . *Casearia graveolens.*
Dhaman : *Grewia tiliaefolia.*
Dhamodo : *Anogeissus latifolia.*
Dhola umbh : *Casearia tomentosa.*
Dhutrau : *Elacodendron glaucum.*
Dudhi *Wrightia tinctoria.*
Gal-gugad · *Flacourtia Ramontchi.*
Garmalo . *Cassia fistula.*
Ghela *Randia dumentorum.*
Gugal *Boswellia serrata.*
Gular . *Ficus glomerata.*
Gumgar . *Gardenia turgida*
Ghat-bore · *Zizyphus xylopyra.*
Haladvan *Adina cordifolia.*
Harda *Terminalia chebula*
Hivar · *Acacia lucophloca.*
Indrajava *Holarrhena antidysenterica.*
Jambudi *Eugenia zeylancia.*
Jambudo *E. Jambolana.*
Kadvai : *Hymenodictyiyon exelsum.*
Kakad *Caruga pinnata*
Kadgoli (Kadaya) · *Sterculia urens.*
Kagar *Acacia ferrunginia.*
Kalam . *Stephegyne parviflora.*
Kala sirus : *Albizzia lebbek.*
Kamoi *Phyllanthus reticulatus.*
Kampilo · *Mallotus philippinensis*
Kanji *Holoptelca integrifolia.*
Kanti . *Acacia ferruginea.*
Karank · *Pongamia pinnata.*
Kasod *Cassia siamea.*
Khair : *Acacia catechu.*
Khakhar : *Butea fronobsa.*
Khajuri · *Phoeniz dactylifera*
Khata-amba (Kosum) : *Schleichcra oleosa.*
Kilavi . *Albizzia procera.*
Kothi : *Feronia elephentum.*
Kudi : *Wrightia tomentosa.*
Kudi : *Holarrhena antidysenterica.*
Kumbhi : *Gareya arborea.*
Limdo : *Azardirachta indica.*
Mahuda : *Madhuca latifolia.*
Manji : *Casearia tomentosa.*

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Medhsingi : *Dolichandrone falcata.*
Mindhal : *Randia dumentorum.*
Mokha . *Schrebera Swietenoides.*
Nana : *Lagerstreomia lanceolata.*
Pipar . *Ficus Tsiela.*
Piparo : *Ficus religiosa*
Pongara . *Eruthrina indica.*
Ritha . *Sapindus laurifollus*
Sadado · *Teminalia tomentosa.*
Sag : *Tectona Grandis.*
Samar *Gossampinus hoptaphylla* [*Bombay Malabarum*].
Sarero . *Stoeblus asper.*
Sirus . *Albizzia lebbek*
Sitafal . *Anona squamosa*
Shivan · *Gmelia arborea.*
Sukhad . *Santalum album*
Tad : *Borassus flabellifer.*
Tanachh *Ougenia dalbergiodes.*
Teha sag · *Dillenia pentagynae.*
Tetu *Oroxylum indicum.*
Timru . *Diospyros melanoxylon.*
Umbh *Saccopetalum tomentosum.*
Umro · *Ficus glomerata*
Vad *Ficus bengalensis.*
Warang *Kydia calycina*
Yenk . *Gymnosporia montana*

Bamboos—
Manval *Dendrocal amustrictus*
Katas *Bambusa arundinacea*

FAUNA.* General.

Before the territory of the old Rajpipla State was merged with the adjoining district of Broach, Broach District consisted of the area north of the Narmada divided into five Talukas, *viz.*, Broach, Ankleshwar, Wagra, Amod, Jambusar, and Hansot Mahal. All this country is a flat plain devoid of forest of any kind and all the lands, except some *khar* lands, are under cultivation. With the merged territory of Rajpipla State, including Sagbara (about 1500 sq miles), the district now has about 650 sq. miles. of forests restricted to Nandod, Dediapada and Jhagadia Talukas and Valia and Sagbara *mahals*. The forest is mostly tropical, dry, deciduous and is generally confined to the hills The management of the forest was far from satisfactory during the former State regime. However, those parts of the forests which were earmarked as shooting reserves, game preserves and sanctuaries under the direct control of the State Shikar Department, were well looked after and protected.

WILD ANIMALS.

Class — *Mammalia.*
Order — *Carnivora.*

*Contributed by Shri M A Rashid, Divisional District Officer, Rajpipla. The scientific names of wild animals mentioned in this section are in accordance with "The Fauna of British India", by W. T. Blanford.

Natural Resources.
WILD ANIMALS.
(1) The Tiger.

Sub-order — *Fissipedia*,
Family — *Felidae*.

The tiger (*Felis tigris*) — G. *Patawalo vagh, Patayat.*

In the beginning of this century, there were plenty of tigers in Rajpipla jungles, which are situated at the western tail end of the Satpura ranges. Before the State passed game laws during the second decade of the century. any one who killed a tiger was given a cash reward of Rs. 25/-. As this forest is a continuation of Satpura range, coming from central India and West Khandesh, it is never without tiger although its habitat is now limited mostly to Dediapada, Gora and Sagbara ranges of this forest division. Large tracts of forest area of Valia taluka were brought under cultivation during the State regime and the tiger moved eastward along with other game animals. He, however, occassionally visits his old haunts at the end of the monsoon when he finds good cover in grass and field crops. In the early forties, a large male tiger is reported to have crossed the Narmada near Avidha and gone as far as Amod where he fatally mauled three people who were cutting grass in open country and on his way back the third day, claimed a fourth victim near Jhagadia Railway Station With the wholesale destruction of wild *Boar*, *Sambhar*, *Cheetal* and barking *Deer* (the tiger's main prey) by poachers, the tiger has now turned to cattle lifting for his maintenance. People living in the interior of the forest whose cattle is killed, sometimes, destroy the tiger by stuffing the remains of the kill with *Mana-Kodra* mixed with red-lead *(Sindur)* and poisonous roots of certain herbs. As the tiger has a very large beat of regular rounds, sometimes passing through more than one division, it is very difficult to locate the place of crime and even if located, it is most difficult to bring the culprits to book because, no material evidence is left behind since the tiger's carcass is destroyed by burning.

When Sorapada, Nangir, Babadoti, Kishmore, and Junaraj blocks were game preserves and Ghantoli and Thava jungles were the Maharaja's shooting reserves, tiger could be found in these places at all times of the year. After Sorapada block of 22,000 acres was given over to the revenue department in 1950 for rehabilitation of Adivasis coming from the plains country and felling of the forest started, the tiger has left his permanent habitat and moved further east along with other wild animals. Some fifty years back, the habitat and sphere of activities of the tiger in this division was within the area bounded by the western border of West Khandesh (Kanthi and Raisingpur estates) and Chhota-Udepur on the east, Jhagadia and Valia on the West, Rajpipla and Gardeshwar on the North and Nanchhal and Songadh ranges on the South. At present, he can be found in Dediapada, Gora and Sagbara ranges only and occasionally in Netrang Range and that too only in comparatively restricted numbers.

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One man-killer was also reported in 1948 operating round about Ghantoli shooting reserve which had killed four or five villagers. This was the only man-eating tiger having come to knowledge in this part of the country during recent years.

(2) *Panther* (Felis pardus) — is called in local Gujarati language *Biladio vagh*, also called *Hechkio* by *Adiwasis*. The *Panther* can be found almost everywhere in the jungle area of this district and on many occasions, particularly when there is high crop in the fields, he visits villages outside jungle area. Practically every village in the jungle has its own *Panther* and he is practically an institution by himself.

There are two kinds of *Panthers* though both are of the same species, *viz.*, the forest *Panther* and the village *Panther*.

The forest Panther called *Beroo* in local *Adiwasis* dialect and *Sonbimat* in Khandeshi dialect, is somewhat larger than the village panther and has somewhat brighter orange background. He generally lives in jungle on deer and cattle, but would not miss an opportunity to pick up a dog or a goat near or from the jungle village. He is more wary and has a larger sphere of activity than the village panther. He is a very destructive wild beast of prey and is responsible for a large number of deer and cattle killed in the forest areas. In the months of April, May and June, villagers let loose their cattle for grazing and there is no cowherd attending them at that time. As there is scarcity of fodder in that part of the year, the cattle stray far away from the village in search of green pasture and fresh leaves of saplings and shrubs in river beds, ravines, and *nullahs*, thus offering themselves an easy target for the panther.

The village panther, being one of the most daring and cunning wild beast, of preys is a constant nuisance and harassment to the villagers. He often breaks open a hut and pinches away a goat, a dog, or poultry, sometimes so cunningly and stealthily that human beings sleeping in the same hut do not know what had happened during the night till next morning.

The panther can be found throughout the forest area of the district and also in cultivated areas with *kotars* (deep nullahs) and scrub or thorn jungles for cover on the border of the forest. A man was mauled in Jhagadia town, by a small panther during day time. When the crop is high, he is often met with in open fields along the south of Rajpipla-Ankleshwar Railway line between Rajpipla and Jhagadia. Ratanpore, Tejpur, Navagam and Junaraj were the Maharaja's shooting reserves for panther shoot.

No man-eater panther has been reported in recent years but cases of mauling do occur almost every year, particularly in monsoon.

(3) The leopard cat *(Felis Bengalensis)* — called *Morchitu* in local Gujarati and Adivasis' dialect. It is more or less a diminutive panther living on pea-fowl, jungle-fowl and small animals. It is very rarely seen. It is a dweller of thick forests. There are very few of them in this part of the country. It is called *Mor-chittu* by the local Bhils because of its climbing after pea-fowl roosting on trees.

(4) Jungle cat *(Felis chaus)* — G. *Ranibilado* . It is very common in the forest and scrub jungle. It is also found in grass patches. It is very destructive to poultry and lives on birds and small mammals. It is commoner than the leopard cat.

Family : *Viverridae.*
Sub-family . *Viverrinae.*

Civet.

Of the civet family, only two species are common in this district.

(5) The Small Indian Civet *(Viverricula malaccensis)* — G. *Noll.* It is a small cat entirely nocturnal and is a dweller of forests It generally lives on small mammals, birds and insects and is very often found stealing a meal out of the remains of the kills of larger carnivora

(6) The Indian Palm Civet *(Paradoxurus niger)* — G. *Vaniar.* This small blackish brown coarse-haired civet cat is mainly nocturnal and very destructive to poultry. Its diet consists of poultry, small mammals and birds, besides fruits, berries, and jaggery. It often takes up its abode in old uninhabited buildings having wooden ceilings and can often be seen, just after dark in the evening or on moon-lit nights, walking on roofs and balconies, sometimes precariously on the edge of one to reach the other. It also fixes itself up in hollows of tree-trunks and can easily reach the topmost farthermost or thinnest branch of a tree to catch its prey.

Sub-family : *Herpestinae.*

(7) The common Indian mongoose *(Herpestes mungo)* — G. *Nolioon.* It is common throughout the district and hardly needs introduction and description.

Family Hyaenidae

(8) Hyaena *(Hyaena striata)* — called *Jarakh, Chitro, Vanio* in local Gujarati language There is only one species of Hyaena and that is striped Hyaena. The local Adivasis call it Vania meaning Bania, grocer or money-lender. This name they have given according to their belief, for its qualities of accumulating its surplus wealth of bones of dead animals in the safe deposit vault of its den for the "rainy day". It is said that when a tiger or panther does not get any food for days together and is very hungry,

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it visits the hyaena's den and gets a bite. Thus the hyaena is supposed to be lending to the tiger or panther as his "*Sahukar*" or money-lender.

This scavenger of nature lives mostly in the forest but can also be found in plain country, taking up its abode in abandoned burrows of a porcupine, fox or jackal. It invariably visits outskirts of villages where dead cattle are recovered and skinned by local chamars and easily finds out tiger or panther kills and prowls about waiting impatiently for its share of the spoil.

It is ordinarily a harmless and cowardly beast but becomes very dangerous when infected with rabies.

Family Conides

Of the canine tribe, there are four main species in this district :—

(9) The Indian wolf *(Canis Lupus)* — G. *Varoo.* Although according to the old gazetteer of 1877, the wolf seemed to be common in the district in those days, it is rarely seen now. About 20 years ago, its depredations on herds near Rajpipla and Jhagadia were reported but now it is not heard of. However, a stray beast may be found in *kotars* in plain country. It is not a dweller of forest and much of the scrub and thorn jungle has been cleared.

(10) The Indian Wild dog *(Cyon dukhunensis)* — G. *Bhilori Rani-kutro, Kohl-kutro, Rani-Huno*

This hunting beast of the canine tribe is a dweller of the forests and is found in Dediapada, Gora, and Sagbara Ranges. It, however, does not stick to any one particular area and is almost always on the move in search of its prey. It hunts deer and antelope in packs and its method of hunting is to drive out its prey into a tight corner, by means of a well planned beat, and kill it by simultaneous attack from all sides. It is very destructive to deer and antelopes of forest. Its number has considerably decreased, probably due to migration to other more suitable places where it can get its food in plenty.

(11) The Indian Fox *(Vulpus Bengalensis)* — G. *Lokdi, Khekhli, Fao.* It is quite common throughout the district. Fox is different from jackal. It is generally found alone or rarely in pairs, and lives in burrows, high grass and scrub jungle. It is a pretty, soft-haired animal with bushy long tail and inhabits open country. When chased by village pariah dogs, its long bushy tail serves it a great deal in giving a slip to the chasing dog and it is a sight to see the chase. It lives on mice, reptiles, insects and small birds. It sometimes, gives a cry at night resembling something like "*Phaooo*" and that is why it is called "*Phao*" by local villagers. There is a common belief amongst villagers that this is a cry of alarm and it gives the alarm when it is following on the heels of a panther or a hyaena.

(12) The Jackal *(Canis aureus)* — G. *Shial.* This useful scavenger is almost ubiquitous in the district. It is, however, more common in plain country than in the forest. The sound of its mournful chorus howling at night on the outskirts of villages is one of the most familiar sounds, particularly during winter. Though nocturnal, it is often met with during day time in fields. It moves singly or in pairs during day-time but several of them gather together at night to feast on carrion. It is a very common wild beast of the canine tribe and hardly needs description. Except causing destruction to poultry and damage to ground-nuts, cucumber and maize, it is harmless. However, it often gets infection of rabies and a rabid jackal is a source of great danger to villagers. Pariah village dogs often contact rabies from the bites of rabid jackals.

Sub-family : *Melinae.*

Family mustelidae.

There are two species of this family occurring in the district.

(13) The Indian Ratel *(Mellivora Indica)* — Gujarati "*Gorkhidioo*" "*Kabar-Bijjoo*". This animal being entirely nocturnal in its habits and hardly coming out during day-time from its hiding place, which is rarely known, it is very rarely met with. There is a common belief that it digs out buried dead bodies and hence the name "*Kabarbijjoo*" "*Grave digger*". This remarkable animal has peculier colouring black beneath and gray above which is very protective in moon-light. It is supposed to be possessing enormous strength in proportion to its size, and is very courageous. It can easily climb trees and it takes up abode in hollow tree trunks.

(14) The common Otter *(Lutra Vulgaris)* — Gujarati "*Jal-Manas*" "*Jal-ood*". Otter can be found at some places in the Narmada in this district particularly where there are islands with plenty of thick cover on them. It is known to be found at Gora, Panetha, Asa and Shuklatirth. It is very destructive to fish, has a fine fur coat over its body and is very playful. When disturbed while on the bank, it would jump in water, dive away and come out at a distance peering back and would again dive on approach. It deliberately does this as if playing hide and seek.

Family Ursidae.

There is only one species of this family viz.

(15) The Sloth-bear *(Melurus ursinus)* — Gujarati "*Rinchh*", "*Aachhan*". (Adivasi dialact) : Though classed as carnivorous, its main diet is jungle fruits such as Gulafig, Mahura flowers, mango, Cordia, Diospyros, Zizyphus fruits. It is very fond of honey and ants. It digs out heaps of earth in search of ants and these dugouts indicate the presence of a sloth-bear in the vicinity. It is not found in very considerable numbers in this district but can be found singly or in pairs and sometimes with young ones in the hills of Netrang, Dediapada, Gora and Sagbara Ranges. Though it takes up its abode in remote rocks or bamboo clumps and catus bushes on hills during day-time, it often travels great distances coming down to plain country near forest in search of seasonal fruits.

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Villagers residing in the forest area are much afraid of this foolish, irritable, clumsy animal because, having very poor sight, it often bumps into villagers in the jungle at night and attacks, out of fright, without provocation. It causes very ugly wounds with its strong teeth and long sharp claws and, its target is often the face and head of man when it attacks.

(16) Prominent amongst the species of Bats, Flying fox.

Order : Cheiroptora Bats.

(*Pteropus Giganteus*)—Gujarati "Vagol" is very common in the district. It is very destructive to fruits and causes havoc in fruit orchards. Sometimes they collect by hundreds at night in a fruit orchard and attack the fruit before it is ripe and do considerable damage before they are driven away by the night watchman. A few years ago they caused havoc in mango and other fruit gardens in Kasia, Mandva, and Govaliabet, and the owners of the gardens had to request the help of the District Collector to arrange to send some one with a gun to keep them in check because the swarms had decided to settle down permanently in the fruit orchards.

It is a sight to see these mammals flying in a string, silhouelted against the setting sun at dusk, going on their nocturnal raids some of them skimming one after another over the surface of water on a river or a pond and, rising again after touching the water with a splash.

Several species of smaller bats also occur in this district. They take up their abode in old uninhabitaed buildings, ruins and caves, and most of them being insectivorous hawk after insects at dusk.

ORDER RODENTS. Scruidae.

There are two species of squirrel tribe that occur in this district.

(17) The Flying Squirrel *(Pteromys)* — Gujarati "*Udti-Butedi*" "*Pakharoo*" (Adivasi dialect). Being a forest dweller, the flying squirrel is restricted to well-wooded heavy forest. Its main diet is fruits. It does not fly but glides from the top of one tree to the trunk of another and then climbs up that tree. It is very destructive to mango fruits in the forest area. It takes up its abode in forks of big trees and is nocturnal. It has a fine silky fur all over the body and has membranous extensions on the sides like wings of flying fox, with the help of which it glides. It is not very common here, and the only places where it is found are patches of moist thick forest in Dediapada, Sagbara and Gora Ranges. The Bhils of hill tracks eat its flesh.

(18) The Palm Squirrel *(Sciurus Palmarus)* — Gujarati "*Butedi*". The five striped palm squirrel — "*Buti*". It is ubiquitous in the district, but more common near habitations. The Adivasis catch it and eat it. It hardly needs description.

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(19) Hare *(Lopus negricellis)* — Gujarati "*Sasaloo*" : The hare is a dweller of scrub country near cultivation but is also found in the forest near habitation. It is hunted by cowherds with the help of dogs during day time and is netted by villagers at night.

(20) Rat and Mouse. Mole Rat *(Bandicota bengalensis)*.

Fileld mouse (*Mus Booduga*): In addition to the ordinary rats and mice so common in villages and towns, there are some species of field rats and mice, prominent amongst them being the Indian Mole rat *(Bandicota Bengalensis)* Gujarati "*Ghus*" and Indian field mouse *(Mus Booduga)*. The former digs out deep burrows and throws out heaps of earth outside the mouth of the burrow and the latter does lot of damage to crops.

Family Room Hyaeindes.

(21) The Indian Porcupine *(Hystrix Leucura)* — Gujarati "*Sahudi*". The Indian Porcupine is common in the district, but due to its being entirely nocturnal, it is rarely met with during day-time. One can, however, find its tracks on jungle highways, cart tracks and game tracks in the morning. It is very destructive to crops, vegetables and plantations. Villagers trap it by putting a trap at the mouth of its hole, and they relish its flesh very much. They dry up its stomach and its contents and store them to be used as medicine for external application and also for internal use on certain disease of lungs, and stomach ailments peculiar to infants. The panther is the deadly enemy of porcupine.

ORDER UNGULATA. Family Elephantidae.

(22) The Indian Elephant *(Elephas Maximus)* — Gujarati "*Jangli-Hathi*" : Nothing is known about the wild elephant in the forests of this district, except that reference has been made about it in the old Gazetteer of Panch-Mahals and Reva-Kantha dated 1880 to the effect that the wild elephants were as late as the 17th Century found in Rajpipla and Chhota-Udepur forests.

Family Bevidso.

(23) The Indian Bison *(Gaur) (Bos-Gavaeus)* — Gujarati "*Ranipado*". About 50 years ago, bison was found in Sorapada block of Dediapada Range, Piplod block of Gora Range and Gadi-janter blocks of Gardeshvar Sub-range and also in south-east corner of Sagbara Range; but now there is no trace of it in these parts or in any other part of this district. However, one was shot during the second decade of this century near Sagai in Piplod block, and another in the early twenties near Gadi-jantar of Gardeshvar taluka, on the border of Chhota-Udepur.

Antelopes.

Prominent amongst the antelopes in this district are Nilgai, four horned antelope, black-buck and Indian Gazelle (chinkara). The first and the last have practically become extinct in this district.

(24) Nilgai *(Bosolphus Tragocamelus)* — Gujarati "*Roz*" : It might have been dwelling before in the plain country of Jambusar sub-division but now unlike central and northern Gujarat its habits is restricted to jungle area. In the jungle also it is rarely

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met with. When Ratanpur and Sorapada were shooting reserves, it was found in considerable numbers but now it has practically become extinct in this district.

(25) The four horned antelope *(Tetraceros Quadricornis)* — Gujarati *"Chosingu" "Bhekhru"*. It is found in the jungle on the hill slopes or grassy patches, singly or in pairs and sometimes in a family of four including two young ones. Its number is greatly reduced due to its slaughter by poachers on water-holes, where it is in the habit of drinking at fixed hours, between 12 noon and 2 in the afternoon. It is very often found in the vicinity of jungle villages and is mostly a browsing animal and is a resident of deciduous forests.

(26) The Black Buck *(Antelope cervicapra)* — Gujarati- *"Buck (Kadial), Doe (Harni)"*: This beautiful and graceful antelope was found in plenty all throughout the district in open country about 30 years ago. Gun license holders north of the Narmada have exterminated it entirely, and now not a single animal is met with north of the Narmada. South of the Narmada, it was well protected in Rajpipla State territory by the State law and herds could be found almost all over the open country of the State. It had become so much fearless of human beings that it could be approached within a few yards. After integration of the State, local villagers and outsiders started its massacre without regard to age or sex, as in other States. Outsiders from distant places from Surat and Baroda districts started coming in jeep cars and killed or wounded without discrimination by shooting with buck shot from running cars or running it over. Local Bhils and Kolis who had firearms shot it and, those who had no firearms chased it with dogs and caught it in nets. In monsoon when the Narmada was in flood, the antelope moved to safety on higher grounds where it was easy to surround it and kill it. As this part of the country has black cotton soil, and the antelope having thin legs cannot run at its usual speed in mud and slush during monsoon, it can easily be chased with dogs.

Parties of Bhils with dogs and bows and arrows used to go on hunting expeditions and hardly an animal could escape out of the herd. Those that escaped the destructive hands of man are left and they are very few and far between. Now it has taken refuge at places where there is broken gound and scrub or thorn jungle to afford enough cover. Some of the places are round about Indore-Panetha, Tarsali and Dadhedha in Jhagadia Taluka and Kosamdi and Umerwada in Ankleshvar Taluka. It is a strange co-incidence that the population of all these places is predominantly non-vegetarian.

(27) The Indian Gazelle *(Gazella Benetil)* : — Gujarati *"Kalpuchh", Chinkara, Chink.*

Sometime ago a small herd near Jhagadia on the border of Ratanpur shooting reserve and another near Jior-Pati in Nandod Taluka, was occassionally met with. Now there is no trace of it in any part of the district. It is a dweller of scrub jungle and most part of such jungle is cleared for cultivation.

FAMILY CERVIDATE.

Deer : Only three species of the deer tribe were dwelling in the jungle area of this district but at present only two are to be found, the barking deer and the sambar. The third, chital, has become extinct. There are no hog deer, swamp deer or mouse deer in this district.

Deer

(28) The Barking deer *(Cervulus Muntjac)* — Gujarati *"Fokdi" "Panfokdi"*. This small deer is a dweller of thick wooded jungle and is to be found all throughout the forest area of this district either single or in pairs. It gives an alarm cry resembling something like the bark of a dog and from this it derives its name "Barking deer". It is supposed to be a watchman of the jungle as it gives alarm on seeing a panther or a tiger, but sometimes it gives the alarm on seeing human beings or when startled suddenly. Its number has decreased considerably. It is shot from hideouts near water holes in summer and at feeding places during winter by poachers.

(29) The Sambar *(Cervus unicolor)* — Gujarati *"Sambar"* : The Sambar dwells in thick jungle with bamboos in it, and was once (about 25 years ago) found in all ranges of the Rajpipla forests. Now its habitat is restricted to Dediapada, Gora and Sagbara Ranges and its number has greatly thinned in recent years. It is much hunted by the local Bhils and the Rajpipla forests being the nearest to the open country on the west, south-west and north, poachers from the adjoining country also come on hunting expeditions in parties. Their method of hunting is (1) to shoot on water holes during summer; (2) to shoot them under fruit trees or on *tuver* fields on the edge of the jungle in forest villages where it comes to feed at night; and (3) to track them after the first showers of monsoon when the tracking becomes easy due to soft wet earth. Parties of poachers start from one end of the forest, beating during day-time, and sitting up on water holes or fruit trees or in fields at night, proceeding further by stages to the other end. A large number of Sambars have been destroyed by the people and there are only a few dozen left now, east and south-east of Dediapada.

(30) Chital or Spotted deer *(Cervus Axis)* — Gujarati *"Cheetal"*. This beautiful deer was to be found only at two places, i.e., the Ratanpur shooting reserve and the Sorapada preserve. As there were only a few herds at both these places it was well protected and preserved by the late Maharaja so much so that he himself did not shoot any and requested his guests on shooting trips not to shoot one if it came out in a beat. Now, it has become extinct at both these places. At Ratanpur it was extreminated by the Bhil villagers of surrounding country by driving it into thong nets

CHAPTER I — Natural Resources. WILD ANIMALS. Family Smides.

1. placed at strategic points of exist and by shooting on water holes and feeding places. Some of those at Sorapada were netted and killed by *Phas Pardhis* (professional trappers) coming from Khandesh and the remaining were shot by the local Bhils.

(31) Indian Wild Pig *(Suscristatus)* — Gujarati "*Bhund*", "*Suvvar*". Once wild pigs were plenty not only in the forest area but also in plain country throughout the district. As mentioned in the old Gazetteer, it could be found as far north as Jambusar and Amod. It could be found at places on the banks of the Narmada, Dhadhar and Karjan when there was cover for its shelter and also on the out-skirts of Rajpipla, Jhagadia and many villages where there were thick hedges and thorn bushes. As wild pig is one of the main items of food for tiger and panther, it was, though vermin, well protected by Rajpipla State law and was not allowed to be shot or destroyed in any way. Now it is restricted to thick forests in the Dediapada and Sagbara talukas, and confines itself to the jungle except for its nocturnal raids on crops in fields of forest villages during winter. It is a very wasteful beast and does a lot of damage to the crop during its raids.

The Bhils are particularly fond of its flesh and would not spare any pains to get it. Wild pig being easy to track they follow it to its lair covering great distances. It is also shot on water holes in summer and at feeding places and fields in winter. It is also trapped in ditches specially dug and covered up with grass on top, and, sometimes the whole herd falls into one of them. Under the present law of protection, pig is classed as vermin, but in this part of the country it is not destructive to crops in open country as it does not dwell in the vicinity of open field country.

ORDER EDENTATA.

(32) The Indian Panjoli or Scaly Ant-eater *(Manis pentadactilla)* — Gujarati "*Bhingaroo*" "*Pingaroo*". This species of the order EDENTATA is a rarity and curiosity in this district. It is seldom met with. In early forties one was caught by a Shikari at Rajpipla and was tamed by him. It however died after a few months. It lives in deep burrows, dug out in steep banks of rocks or hills in forest, and excavates a great amount of earth by means of its sharp strong semi-circular overlaping scales over its body. It lives on ants and termites. It thrusts its long glutinous tongue and quickly withdraws it into its mouth with ants or termites stuck on it. It is called "*Bhingaroo*" or "*Pingaroo*" by local Bhils in their dialect. The name is given on account of scales which are known as "*Bhingda*". As the Bhils pronounce "Bh" as "P" they call it Pingaroo.

REPTILES. Amphibian Lizards, Muggar and Tortoise.

(33) Muggar or Crocodile : Only one variety of muggar is found here. The long-snouted Gharial is not found in this district. Sometime back muggar could be found all long the Narmada right from Sulpan-Mokhli down-wards upto Broach.

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Skin hunters, at the instance of the agents of skin dealers have killed it on a mass scale with hook and line. The agents were paying these skin hunters Rs. 2/- per running inch across breadth wise of the under parts and they were exporting the skins to manufacturers or dealers making a lucrative business out of it.

A few are however still left at some places along the Narmada—

Stone.

A gypsy tribe called "*Thore*" who make a living by preparing and selling household articles such as wooden ladles, basins and churns, milling stones and mortars are very found of muggars' flesh. It is considered a delicacy and when a marriage is celebreated amongst them, they must have muggar for the community dinner.

(34) Tortoise—"*Kachbo*"—It is common in the Narmada and also at places in Karjan where water is fairly deep. The Bhils and local fishermen called—"*Bhoi*" relish its flesh, but it is not sought after. Occassionally it falls into fishing nets and is killed and eaten.

Lizards.

There are two types of lizards worth note in this district.

(35) The Chameleon — Gujarati "*Hal Kauchido*".

(36) The Iguana — Gujarati — "*Patla Gho*".

The Iguana or Patla Gho is much hunted by Bhils and Vaghris, as they relish its flesh.

WILD BIRDS.*

Over two hundred and fifty species of birds may be found in this district, more than one third of which are migratory winter visitors. They include many orders and families but only those prominently coming to notice are dealt with here. For the sake of convenience they are roughly divided into seven categories; *viz.*, (I) Game Birds, (II) Water Birds, (III) Shore Birds, (IV) Birds of Prey, (V) Song Birds, (VI) Birds of Plumage, and (VII) Miscellaneous.

1. Game Birds. Green Pigeon.

Green Pigeon *(Grocopus Phoenicopterus Chlorigaster)* — Gujarati "*Harial*" "*Gharud*" "*Ghanivad*":—The Green Pigeon is a common game bird to be found throughout the district, in plain country as well as in forest. The Adivasis call it "*Harud*" or "*Ghanivad*". It migrates locally to places where trees are in fruit. The forest haryal is more wary than that residing near human habitation. When Banyan *(Vad)* and Gula *(Fig)* trees on the roadsides are in fruit, flocks of green pigeon flying from one tree to another is a common sight in the morning and evening. It is very good eating.

* The scientific names of wild Birds mentioned in these are according to E. C. Stuart-Baker, Jerdon, Messurier and Salim Ali.

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WILD BIRDS.
Blue Rock Pigeon.

Blue Rock Pigeon *(Columba Livia)* — Gujarati "*Kabutar*": The Blue Rock Pigeon inhabits hill rocks, unused wells, forts and old buildings. It is not a game bird in the true sense of the word and sportsmen do not go after it. Local Vaghris and Bhils, however, net it. It is believed that its soup is efficacious in asthama and low blood pressure.

Grey Patridge.

There are only two varieties of partridge in this district, grey and painted. Black and Hill partridge are not found here.

Grey Patridge.

The Grey Partridge *(Francolinus Pondicerianus)* — Gujarati "*Titar*". It is very common throughout the plain country of the district though not plentiful as in North Gujarat. It is very vocal and its cheerful call in the morning and evening is a familiar sound of the countryside. It is tamed by Vaghris and Kolis, not for fight as is done in northern and southern India, but for training it to serve as a decoy in snaring its wild tribe. The tamed bird is trained to call on the whistle of its master. The master goes out with the tamed bird in a cage, puts the cage near the haunts of wild partridge, arranges a string of snares near the cage, hides himself in a nearby bush and whistles. The tamed partridge, on hearing its master's whistle, calls and the wild ones answer the call and close on it. In doing so they get caught in the snares and are picked up to be sold alive in nearby villages. By this method, half a dozen brace could easily be caught in a day. It is a good table bird.

The Painted Patridge.

The Painted Partridge *(Francolinus Pictus)* — Gujarati "*Khadtitar*" "*Kalotitar*". It is erroneously called "*Kalotitar*" or Black Partridge by local people here. The Adivasis call it "*Khadtiti*" in their dialect. It is found near cultivation of jungle villages in tall grass on the banks of nullahs and ravines as it prefers thicker and damper cover, but comes out in barren and fallow fields. Its squeaking call, something like "Shukaarr-teri-Quadarat", can be heard from all sides of a jugle village in monsoon at which the bird is more local. It often sits on tree stump, molehill, or branch of a tree and calls, but stops on approach of man and, glides down below in cover and slips away unnoticed. Phas pardhis from Khandesh used to come in summer, when there is no high grass, to catch it, and they were catching it for sale in the nearby villages on a mass scale. The common method they adopt is to locate the bird, go behind the cover of a trained bullock and a "tatti", (a square piece of cloth coloured reddish brown and fixed on sticks with a peeping hole to see) hold in front in the left hand and the bullock's rope in the right hand, placing a string of snares at the likely point of retreat of the bird, and slowly advancing under the cover of the bullock and the "*tatti*", thus driving it, without flushing, into the snare. These Pardhis are however, not noticed coming this side in recent years. This bird has beautiful feathers and is a prized table bird.

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WILD BIRDS.

Sand Grouse.

Three types of Sand Grouse are found in this district, *viz.*, (1) The Common Indian Sand Grouse. (Pterocles senegalonsis erlangari), (2) The Painted Sand Grouse (Pterocles indicus) and (3) The Imperial Sand Grouse (Pterocles orientalis), the last one being an occasional winter visitor.

The Common Indian Sand Grouse and the Painted Sand Grouse are found in places where there is sandy or rocky soil and stubble fields. It is also found where there is black cotton soil interspersed with areas of red earth and small flat hills or raised grounds wih scanty small bush on it. It is found in country round about Valia, Rajpipla, Jhagadia, Gardeshwar and other suitable places. It makes a chuckling sound while flying, thus announcing its presence in the vicinity. One of its most notable characteristics is its regular flight to water morning and evening. Both these types are locally migratory, while the Imperial Sand Grouse (Pterocles orientalis) is an occasional winter visitor.

Sometimes it is found in considerable numbers during winter. Having rather a tough skin, it is not considered as a very good table bird.

Quail

Five types of Quail can be found in the district.

(1) Common or Grey Quail (Coturnix Communis)
(2) The Rain Quail (Coturnis Coromandelica
(3) The Bustard Quail (Turnix tigoor)
(4) The Button Quail (Turnix sytesii)
(5) The Bush Quail (Perdicula asiatica)

The Grey Quail (*Lavri*). Adivasis call it "*Tirbach*".

The Grey Quail is a winter visitor coming here by the end of September and returning by the end of March. It can be found in fields near the banks of the Narmada, Karjan, and Dhadhar, in the low lying belt of alluvial soil. It can also be found far away from these rivers, in paddy, *bajri* and *tuvar* fields after the crop is harvested. The Vaghris, Bhils and Kolis hunt it at night by means of a torch and stick with a flat iron piece fixed at one end called "*alti*". They mark during day time its likely roosting places by finding out the droppings on the edges of fields. Then when nights are dark, they go out with a torch prepared out of old bamboos split and tied up into a bundle, searching the quail with the help of the light of the torch. As soon as one is noticed the man quickly takes the torch away behind him and presses down the bird to the ground with the "*alti*" held ready in the other hand. The bird gets dazzled by the strong light and cannot fly away. By this method several braces could be caught in about a couple of hours' time. It is not much shot here by sportsmen. There are very few wing shots in the district and the sport would be inconvenient and expensive because, the number of rounds of ammunition on one's gun license generally permitted for the whole year is not more than two

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WILD BIRDS.

hundred and the price of ammunition has gone up very high. Button and Bustard Quail are not common. Rain Quail is, however, common and Bush Quail is practically found throughout the district.

Quail, particularly, Grey Quail is a nice table bird and is considered a delicacy of the table by the Indian aristocracy.

FAMILY OTIDATE.
Lesser Florican.

Of the Otidae family, only one species, the Lesser Florican, is found here.

Lesser Florican (*Sypheotides aurital*) — Gujarati "*Khadmor*".

The Lesser florican, called "Khadmor" meaning "more" (pea-fowl) of the grass (*Khad*) is not very common in this district. However, it is found singly or in pairs in Valia Ankleshwar, Amod and Jambusar Talukas where there are grassy patches and pasture lands with stray bush and small nullahs in them. It is often seen during the rainy season which is its breeding season. The male is in the habit of jumping perpendicularly above grass at intervals of five to ten minutes with a clucking sound. Some say it does this to attract its mate but the common belief of the local people is that it jumps to catch flying insects like grass hoppers and blister flies. It is particularly fond of blister-flies. It is a tasty table bird.

Pea-fowl.

Pea-Fowl (*Pavo cristatus*) — Gujarati "*Mor*" female "*Dhel*" with tail plumage intact, "*Kalas*", without tail plumage "*Bandar*". The peafowl is very common throughout the district. It is considered a sacred bird by caste Hindus and therefore it is not shot in the plain country where caste Hindus live. Having gained the confidence of man, the pea-fowl of the plain country has taken up its abode in or near villages. It is found practically in every big village of the plain country. It is also found in the forests but as poachers shoot it on water holes and roosting trees it is much wary. The late Maharaja's shooting reserves were once teeming with pea-fowl but poachers and phas-pardhis have reduced its number to a very great extent.

Jungle-fowl.

Jungle-Fowl (*Gallus*) — Gujarati "*Jangli-murghi*", "Rani *Kukdo*". Two types of jungle-fowl are found in the forest area of the district. It was found in plenty in Netrang, Dediapada, Gora and Sagbara ranges some years ago but due to the opening up of forest tracts for cultivation and rehabilitation, it has moved east and south-east where there are patches of thickly wooded forest. Now it is confined to the forest area east and south-east of Dediapada and its number is greatly thinned by poachers and Phas pardhis in past years.

The grey jungle-fowl (*Gallus sonnerati*) and spur-fowl (*Gallo perdix spadicea*) — Gujarati "*kadtal*" are the only two species found here.

The duck in this district is a winter visitor, coming by the end of September and leaving by the end of March.

Teals come in advance followed by others and return in reverse order. As the ducks come from north only those which do not find a haven in Kathiawar and North-Gujarat come this side. It can be found in tanks of Valia, Siloodi, Vataria, Kondh, Doongri, Kanerav, Jabugam, and Ratadia of Valia mahal, the first three of which were the late Maharaja's reserves for duck shoot.

It can also be found in the tank of Kosamdi in Ankleshwar taluka and other tanks of Broach, Jambusar, Vagra and Amod talukas. It, however does not come in as large a number as it used to come about fifteen years ago. It stays in tanks during day time and flies away to nearby rivers and jheels at night, returning again early next morning.

Most of the species visiting this district are —

(i) The Spot-bill Grey-duck (*Anas poecilorhyncha*).

(ii) The Pin-tail (*Dafila acuta*)

(iii) The Gadwall (*Chaulelasmus streperus*).

(iv) The Common Wild-duck or Mullard (*Anas platyrhyncha*).

(v) The Shoveller (*Spatula clypeate*).

(vi) The Pochard or Dun-bird (*Nyroca ferina*).

(vii) The Red crested pochard (*Netta rufina*).

(viii) The Crested or Tufted Pochard (*Nyroca fuligula*).

(ix) The Widgeon (*Mareca penelope*)

(x) The Gaganey or Blue-winged Teal (*Querquedula. Q*).

(xi) The Common teal (*Nettion crecca. c*).

(xii) The Cotton teal (*Nettopus coromandelianus*).

(xiii) The Lesser-whistling-teal (*Dendro cycna gabanica*).

(xiv) The Ruddy sheldrokeor Brahmini (*Casarca ferruginea*).

Of these the last two are river ducks and though migratory found in lesser number in the Narmada and other rivers even after winter. Locally only Brahmini (Ruddy sheldrake) is called "*Batuk*" meaning duck. The rest are called "*Bhoria*".

The Geese — Gujarati "*Gaj*". Of the geese only one specis is an occasional winter visitor. The Nukta or Comb-duck (*Sarcidiornis melanotus*).

Besides the ducks mentioned, the following birds are also found in rivers and ponds of this district.

The rest of the Water-Birds.—Some species of :—Order Steganopodes, (a) Family Peleneanidae (Swimming fishers) pelicans.

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(b) Family Phalacrocoracidae (Diving fishers), Cormorants and Darters; and (c) Family Laridae. Gulls.

Of the Gallinage genus, the Snipe though a shore-bird is dealt with here as it comes under the category of wild-fowl.

Only three Species of Snipe are found in this district, (i) the common fantail snipe (*Gallinage G.*).

(ii) The Pin-tail Snipe (*Gallinage Stenura*) and

(iii) The Jack-Snipe (*Gallinage gallinuga*).

All three are migratory and can be found at places where the ducks are seen, as also on the banks of the river Karjan, Dhadhar and Bhukhi and in jheels and water-clogged swampy patches in the plain country, almost all over the district, except the forest area.

The Solitary Snipe, Wood Snipe, and Wood Cock are not found here. All the above three types of snipe are called "*Paninari*" meaning water-quail by the local Bhils. There is no other name given to it in Gujarati.

The banks of the river Karjan near Rajpipla and few jheels and tanks near Lachhras and Toramal were the shooting reserves of the late Maharaja of Rajpipla for Snipe shoot. On account of its zig-zag course during flight and capacity to gain height after short flight it is one of the most difficult, but at the same time interesting wing sport birds. It is a delicacy of the table.

III SHORE BIRDS. Crane.

Crane —Grus and Anthropoides.

Of the Crane three types are conspicuous—

(i) Demoiselle Crane (*Anthropoids Virgo*) — Gujarati *Kagadia*, "*Vahila*" *Kung*.

(ii) The Common Crane (*Grus Communis*) — Gujarati "*Kulam*" or "*Kulang*", also "*Bhadi Kulang*".

(iii) The Sarus Crane (*Grus antigon*) — "*Sarus*".

And there is also a fourth type of Grus called Grus lilfordi but it is the same species as Grus communis though it is catalogued as distinct. Except Sarus Crane, others are migratory winter visitors, and start coming in flocks by the end of October when the groundnut crop is harvested. Then again they locally migrate from place to place according to the crop of place. They have their fixed landing grounds and resting places near the mouth and along the sandy banks of the Narmada where they take their siesta and nights rest. Some of the places are Kadodbet, Tavra-bet, Shuklatirth-bet, Kabirvadbet, Jhanor and Tarsali sandy banks and Asapanetha-bet. When the wheat crop is ripe in Vagra taluka they collect by thousands there, and again return to places where the Juwar crop is ready. By the beginning of April the return journey to their native place starts.

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The Demoiselle Crane is entirely a different species from the Common crane (Grus communis). The former is smaller in size and is blackish-grey while the latter is a somewhat large bird of ashy colour with tuft of feathers at the tips of the wings. Although both sometimes rest at the same place, they form their own separate groups. As they come from far away countries covering great distances at stages, they are practically famished and lean when they arrive. But after they get good feeding and rest, they put on flesh and fat by about January when they are good eating.

Sarus Crane are found on the banks of the Narmada all round the year and they are not shot by sportsmen, but occassionally the Bhils shoot them. They are not found in great numbers and they are almost always in even number in a flock *i.e.*, always in pairs. There is a common belief that if one of the pair is killed, the remaining mate dies of grief. Gujarati bards have sung many a love song giving Sarus as an example of unselfish love.

CURLEW. (Nymenius arquatus)

The Curlew *(Numenius arquatus)* — Gujarati *"Kuliari"* It is a winter visitor and is found in considerable numbers on the shore near Hansot and Dehejbara. The local Bhils and Vaghris catch it in snares and sell it in towns and near by villages. The Musalmans of Hansot also catch it and send it as a present to their friends and relatives in the town.

IV BIRDS OF PREY Kite, King-fisher, etc.

Besides the above mentioned shore-birds there are several others of different families, sub-families and genera, some of which are some species of order Herodiones. Spoon-bill (Platalea leucorodia) ; family Ciconiidae, Stork

Apart from the common vulture, Kite, King-fisher, and other local Birds of Prey, some Hawks, are winter visitors. Prominent amongst them are, Pale-Harrier (Circus macrourus) and Montague's Harriers (Circus cyanus) called "*Holiskri*" in Gujarati. There are other birds of prey resembling Falcon, called "*Baj*" and "*Maragh*" in Gujarati The Owl and its cousin "*Chibri*" are also birds of prey beneficial to man. Owls destroy rats in fields to a considerable extent.

V SONG-BIRDS.

Conspicious amongst song-birds are :—

(i) Shama *(Copsychus malabaricus)*

(ii) The Black-capped Blackbird *(Turdus mahrattensis).*

(iii) White-checked Ground Thrush *(Turdus citrina cyanotus).*

(iv) The Magpie Robin *(Copsychus saularis)*

(v) The Spotted Babbler *(Pellorneum ruficeps).*

(vi) Ruby threated Bulbul *(Pycnonotus gularisluteolus).*

(vii) The Large Racket-Tailed Drongo *(Dissemurus paradiseus).*

CHAPTER I.

Natural Resources.

VI Birds of Plumage.
VII Miscellaneous.

Common Birds of plumage from amongst several orders and families to be found are King-Fishers, Oriole, Bee-eaters, Sun-birds, Parakeets, Jay, Wood-pecker, Flower-pecker, Barbets, Minivets, etc.

Among other winter immigrants which attract attention by virtue of their sudden appearance in abundance are :—

(i) Rosy Pastor or Jewaribird (Pastor roseus) Gujarati "*Vahia*" or "*Tiliar*".

(ii) Lark (*Calandrella brachydactyla*).

(iii) The Black-headed yellow Bunting (*Emberiza melanocephala*).

(iv) Red headed Yellow Bunting (*Emberiza luteola*) Gujarati "*Hadia*".

The Rosy Pastor does lot of damage to standing crops of Jowar as large swarms descend at a time on a field when the crop is ripening, thus doing a great deal of damage before it is driven away by the field watchman. However, this bird helps and makes amends for the loss it has caused to the cultivator by destroying the locusts in all stages of their growth on which it subsists during the breeding season.

Swarms of lark descend on open plain country to feed on grass seeds and the two buntings feed mainly on paddy, bajri and Jowar.

Weaver Birds.

Flocks of Weaver-birds—Gujarati "*Baya*" (*Ploceus philippinus*) join the buntings in crop raids. These weaver-birds are well known for their remarkable hanging nests with a long entrance tube woven with paddy straw and coarse grass. It is a common belief that the monkey destroys the nests of weaver-birds out of jealousy and therefore it builds its nests where the monkey can hardly reach.

As the monkey in spite of his enormous energy and gift of hands and feet has no house for him to take shelter in monsoon, while this tiny bird builds its cosy little nest, the monkey feels jealous and tries to destroy the nest.

The Indian Horn Bill.

Mention may be made here of the Horn Bill (Grey coloured Indian Horn-bill) and the large Indian Parakeet (Psittacula eupatria) — Gujarati "*Popat*" and its smaller cousin to be found in the forest area of the district.

The Horn-Bill is a resident of thick jungle but visits the country on the edge of the jungle in morning and evening to feed on banyan and peepul fruits. Its breeding method is very queer. The female lays eggs in the hollow of a tree trunk high above ground, which is covered up by the male by means of gums it brings from tree trunks leaving a sufficient hole through which it feeds the mother and the young ones till they are brought out by pecking

open the covering after rains. The local people use this bird as a medicine for post-delivery diseases of women.

BIRDS. Indian Parakeet.

The large Indian Parakeet "*Popat*" is well-known in this forest, particularly that of Doomkhal, an outpost on the south eastern border of the district. It is tamed as a pet and when trained becomes a good mimic. Its smaller cousin called "*Tooie*" on account of its smaller size is also much sought after by townspeople, particularly Hindus, for taming it as a pet. Five out of every ten households of caste Hindus have one or two popat or tooie as a pet. Some Muslims also tame it as a pet.

Doves

Doves—Three types of doves are common here, the White, the Grey and the Spotted Grey. The first is found in fields and scrub jungle where there are Babool trees and the second one which is a bit smaller in size is found in open countryside, while the third and the smallest is found near habitation often cooing on roof tops in villages.

FISH

The fisheries of Broach District are divided into three broad categories, *viz.*, marine, estuarine and fresh water.

Marine fisheries of the district cover the entire coastal region fronting the Gulf of Cambay. The estuarine fisheries are spread over the tidal portions of the rivers, Mahi Dadhar and Narmada, where the admixture of fresh and salt water of the gulf creates favourable conditions for estuarine fisheries. Fresh water fisheries are confined to such portions of the lower reaches of these rivers as lie within the district.

MARINE FISH

The commercially important marine fish fauna of the district comprise the following varieties of fish —

Local Name	*English or Scientific Name*
Bumla	Bombay duck-Harpodon nehereus.
Ghol	Sciaena diacanthus.
Cheval	Polynemus sp.
Ravas	Polynemus terradactylus
Gari	Lates calcarifer.
Kantia	Arius sp. small catfish.
Dharawa	Arius sp. large catfish.
Cholla	Prawns.
Phansti	Clupea sp.
Varkhal	Skate.
Magara	Sharks.
Vehar	Saw fish.
Pipad	Young pomfret.
Kharaplo	Chrysophrys sp.
Karachla	crabs.
Dhangari	Sciana sp.

CHAPTER 1.

Natural Resources.
MARINE FISH
Estuarine Fish.

The following are the important estuarine fish of the district:—

Modar	Hilsa toli.
Chaksi	Hilsa ilisha.
Katiya	Arius sp. small catfish.
Gipti	Cynoglossus sp.
Padacho	Small mullet-Mugil sp.
Maggi or Magiyan	Large mullet-Mugil sp.
Cheval	Polynemus sp.
Levti	Mud skippers-Bolcophthalmus sp.
Kaski	Scatophagus argus.
Tarolia	Small catfish.
Cholla	Small prawns.
Sondiya	Palaemon — large prawns.
Karachala	Stone crab.
Kamal Karachala	Small coloured crab.
Varakhal	Skate.
Magara	Sharks

Fresh Water Fish.

Fresh water fish of the district comprise the following main varieties of fish.

Rau or Rohu	Labeo rohita
Bhilgi	Labeo fimbriata.
Nagari	Cirrhina mrigala
Kanchi	Labeo calbasu.
Padin	Wallago attu.
Shingala	Mystus seenghala.
Shingali	Mystus cavasius and M Gulio.
Sondiya	Palaemon sp. — large prawn.
Chaksi or Chaski	Hilsa ilisha.
Palwa	Male of Hilsa ilisha or of H toli

Fishing is practised throughout the Gulf of Cambay during the fair season commencing from October and ending in May. This period is, however fairly well divided into two seasons The first commences from October and ends in January and the second commences in February and ends in May.

Important Fishing Villages.

The important fishing villages engaged in the capture of marine fish are as under :—

Kavi, Sarod, Dehegam para, Gangva, Malpore, Nada, Tankari, Dahej, Hari Nagar, Gandhar, Bhadbhut, Mehagam, Devala, Hansot, Kantiajal.

Fishing Seasons.

At the commencement of the season in October, the fishermen of the aforesaid villages go out to sea and catch Bombay duck, prawns and other smaller forms of sciaena sp. The nets employed in the fishing operations are the bag or stake nets which are locally known as Gholu or Boksi Jal. Some fishermen use drift nets and make large hauls of H. toli, Rawas, Ghol etc. This fishery is practised specially in December and January each year. Some of the fisher-

CHAPTER 1.

Natural Resources.
MARINE FISH Fishing Seasons.

men from the villages, referred to above, temporarily migrate to Div, Kotda, Muldwarka, Veraval etc., on the Kathiawar coast and catch pomfrets in large quantities. These are transported to Bombay in sailing fish carrier vessels for sale in the Bombay market.

The second season starts in February and ends in May when in lieu of the Gholu nets, the fishermen use drift nets for the capture of large fish like Ghol *(Sciaena sina)*, Gari-Lates, Dara *(Polynemus indicus)*, Rawas *(P. tetradactylus)*, Dharawa-Catfish Magara-Sharks, Chaski *(H. ilisha)*, Modar *(H. toli)* and Koth *(Scianoides sp.)*.

The bulk of the fish caught in the area is cured, the local demand for fish being small. Bombay duck, prawns and other small fish are cured merely by drying in the sun, whereas common salt is used for curing large forms. Fishermen from Bhadbhut and Hansot bring their catches of large fish, such as Ghol, Dara, Chaski *(H. ilisha)* and Bhing or Madur *(H. toli)*, to Broach from where they are dispatched to Bombay duly preserved in ice.

Estuarine fisheries are exploited by fishermen who also practise marine fishing. However, fishermen from Broach, Bhadbhut and Maktampur specialise in this kind of fishing.

Estuarine fishing is practised throughout the year. In the monsoon, however, these fisheries attain a special significance as the *'Chaksi'* and *'Modar'* better known as *'Palla'* and *'Bhing'* in Bombay are caught in this area in large quantities and duly preserved in ice are exported by rail to Bombay where they find a ready sale. But for this fishery, Bombay would have suffered from a virtual dearth of fish during monsoon period when local fishing activity is almost suspended.

The fresh water fisheries of the district are restricted to a short length of the course of the river Narmada, the other two rivers *viz.*, the Dadhar and the Mahi, providing only estuarine fisheries within the limits of this district. The fishing villages along the river Narmada are :—

Aur	Pather	Jhanor Nad.
Nicora	Mangaleswar	Angareswar.
Paira	Sukavna	Koral.
Bhalod	Kevadia	Vaghadia.

Fishing during monsoon is, however, most lucrative, when Palla or the Chaksi (Hilsa ilisha) ascends the river in shoals for breeding. The migration and life history of this fish has very recently been studied. The fish migrates upstream as far as Gora and Mukhadi, where construction of a dam across the river is under consideration. The migration commences usually in July when the river is in flood and continues upto the end of September. Large catches are made during this period specially at spring tide when the migration is at its maximum.

CHAPTER 1.

Natural Resources. MARINE FISH. Fishing Implements.

The fish are caught in long drift nets* operated from small flat bottom boats. There are four fishermen in each boat, three of them operate the net and the fourth man manoeuvres the boat. The nets are stretched across the width of the stream and the fish migrating upstream are enmeshed or gilled into the meshes. In addition to this method of fishing there is another method followed by the 'Bhil' fishermen They use a small about 8′ wide, purse-like hand-net known as *'Jamda'* net for this purpose. They make a small float, known as *'Ghodi'*, by securing together three dry gourds or pumpkins. This float is buoyant enough to support the fisherman. For fishing, the Bhil fisherman mounts the float and drifts down along with the flood water. In his hand he holds his purse-like net immersed in water with its mouth facing the ascending fish.

As soon as the ascending fish strikes the net he immediately lifts the net and secures the fish. The method, though interesting, is quite hazardous, but hundreds of fishermen follow this method as a normal routine in monsoon.

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*The types of nets used in the district are as under :

(1) Choklu or Palwa jal (Drift net).
(2) Gholu or Boksi jal (Bag or stake net).
(3) Vedhi or Sonki (Drag net)
(4) Faroda (shore gill net)
(5) Chhogia (cast net)
(6) Jhachchi Mandana (staked wall net).
(7) Jujwari (half stake wall net)
(8) Mhagh (Barrier net)
(9) Jamda net (hand net)
(10) Gari (Hooks and lines).

(1) Choklu.—Choklu or the Palwa jal is a kind of long drift net generally made of twisted hemp The mesh of the net depends on the kind of fish to be caught. For Hilsa or Palla fish the mesh used is generally 4½ to 5 inch extended mesh The net has a number of floats on its upper margin or cork line and is weighted at its bottom line By this arrangement the net floats or drifts in water like a thin curtain Fish moving in water or travelling with current get enmeshed or caught by their gill covers This is a common method used for chaski (Hilsa ilisha), Modar (H. toli), Rawas, Chol etc

A number of these nets are joined into a single unit for operation. They are generally operated from boats The number of men required to operate the net depends on its length The length of nets used for operation in rivers ranges between 600 to 700 feet For operation in the sea, much longer nets are used

(2) Golva or Gholu is a kind of funnel-shaped bag net which is fixed either on two stakes or on two buoys The stakes are huge poles or pylons planted at the bottom of the sea. They are 80 to 120 ft long and comprise four pieces joined together The lowermost piece is the thickest and tapered at the lower end. The other pieces are progressively narrower in girth The net is 200-300 ft. in circumference at the mouth of the funnel and is 120 to 180 ft. in length. A large size 'Golva' is known as 'Dol' net around Bombay and it works on the same principle as that of the Dol.*

(3) Vedhi or Edi is a kind of a shore seine or a drag net operated from the shore. It is a long rectangular net which is paid out in a semicircular manner and pulled at both ends from the shore. Fish encompassed within the sector of the net is pulled ashore It requires six or eight men. The net has floats on the upper edge and a few sinkers on the lower edge. A smaller

* The details of a Dol and the method of fixing the huge stakes at the bottom of the sea are given in an article by Dr. S. B. Seta entitled "Bombay Fishermen's Ingenuity" Journa Bom. Hist. Soc. Vol 48. No 3, 1949.

CHAPTER 1. Natural Resources. MARINE FISH. Fishing Implements.

Boats :—Boats used in the fisheries of the district are of two types "*Machwas*" and "*Navdies*". "*Machwa*" is a sea going sailing craft varying from 4 to 10 tons in capacity. Some of them work from Bhadbhut, Tankari, Kavi etc., and others go as far as Div, Veraval etc., on the Kathiawar coast. They are ordinary boats with a V shaped body and a high bow and mostly built at Billimora.

The other type the "*Navadi*", is a flat bottom light boat mainly used for river fishing. They are 1 to 2 tons in capacity and are built either at Broach or Billimora. They are specially useful for Palla (*Chaski*) fishing.

There are in all about 600 boats in the district, out of which 200 are in Bhadbhut, about 100 in Kavi and 60 in Sarod.

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form of Vedhi or Edi is known as "sokhi" which is operated by two men. It is about 20ft. long and 6 ft broad It has two poles attached on either side of it, which are used for dragging the net by the operating men. This is a very common and handy method for catching small fish along the shore.

(4) Faroda is a kind of gill net about 100 ft long and 4 ft. deep. It has floats on top and sinkers at the bottom so that when paid out it hangs like a wall. It is paid out in small coves or inlets of riverine areas or the shore and the fish are frightened by noise caused by beating sticks, oars, etc., on the water. Fish so frightened get enmeshed in the net while trying to escape.

(5) 'Chhogia' is an ordinary cast net which appears conical in shape but when spread out becomes a complete circle It has a string at the apex of the cone which when the net is spread assumes a central position. The peripheral margin of the net to which lead weights are attached is tucked in so as to form a pouch all round the circumference For operation, the net is folded and arranged on the left hand by a fisherman and when it is cast, it spreads on the water in a circular manner It sinks to the bottom in a spread out condition on account of the lead weights and thus captures the fish within the circular area. While sinking, the net becomes conical When the string of the net at its apex is pulled it gathers the net at one place and thus collects the fish caught within the circumference into the marginal pouches.

(6) 'Jamda' net is a small purse-like net generally used by Bhil fishermen. This has been briefly described elsewhere in the note. †

(7) Jhachichi Mandana :—In this method a long gill net is fixed like an erect wall across a portion of a river with the help of a number of small stakes or poles The stakes are temporarily fixed in the bed of a river and the net is attached to them to make a wall. When fish swim up and down with the current they get enmeshed in this net. If the net is fixed in the tidal zone fish can be caught both at the high tide and low tide In another type of net known as "Jujawari", the stakes are only at two ends of the net, the middle portion of the net being provided with ropes at upper and lower margins.

(8) Mhagh :—This method of fishing is followed in tidal areas, where there are deep indentations of the coast, which are left exposed during ebb tides. At such places a long small meshed net is arranged in a line from one coastal protrusion to another and kept down folded during ebb tide. During high tide fish enter the area without any hindrance. At this time the net is lifted and fixed there like a wall of nets with the help of small stakes so that when the tide recedes the fish cannot escape and are thus caught in large numbers.

† A detailed description will be found in an article "Hilsa Fisheries of the Narmada River" by C. V. Kulkarni—Journ. Bom. Nat. Hist. Soc. Vol. 51. 1951.

CHAPTER 1. — Natural Resources. SNAKES.

Fishermen:—The majority of the fishermen of the district are Macchis. Other communities such as Kharawas, Waghris, Bhois, Bhils and some Mohamendans from Hansot also take to fishing in season.

The territory is rich in lush vegetation, particularly along river banks and black soil field bunds. The most common poisonous snakes in the locality are the Cobra (*Naja naja*), Krait (*Bungarus caeruleus*), and Russell's viper (*Vipera russeli*). Saw-scaled vipers (*Echis carinata*) may be met with in the coastal areas. The number of recorded cases of deaths due to snake bite for the last five years show the importance of these animals in the life of the people of the district.

Year.	*Number of deaths due to Snake bite.*		*Total.*
	Town Circle	Rural Circle.	
1948	1	21	22
1949	3	26	29
1950	0	31	31
1951	2	52	54
1952	5	35	40

NON-POISONOUS. Family Typhlopidæ.

At least one species of this blind snake is found burrowing in soil and feeding on decaying matter may be expected in the sparse jungle tract of Rajpipla area.

Family Boidæ.

The Indian python (*Python molurus*) may be met with in the Rajpipla area. *Eryx* conicus measuring two feet in length and often mistaken to be a young one of a python will be seen more in sandy regions.

Family Colubridæ.

Ptyas Mucosus (the Rat Snake), may be found anywhere in the locality. It is very agile, yellowish grey in colour with irregular black marked cross-bars on the posterior half of the body. It grows to seven feet and when cornered it emits a hiss and bites fiercely.

Oligodon Sp.—These grow up to 1′-10″ in length. They are grey with large irregular blackish spots edged with darker ones. It is often mistaken to be an Echis or a Krait. It is found near gardens and houses.

Lycodon Sp.—These wolf snakes may be seen on the localities near sea shore. They are chocolate with cross-bars and are often found near human habitations. They are many a time mistaken for Kraits.

POISONOUS.

Natrix piscator:—This is a snake of the plains generally seen in the vicinity of water. It is yellowish above with black spots arranged in a series like a chess-board. It is a prolific breeder.

Family Elapidæ.

Naja naja (Nag) :—The common cobra is found throughout the district. It is seen more in rainy season hunting for frogs

SNAKES.

POISONOUS.

in the vegetation. These are both sinocoellate or ascoellate varieties in the area. The venom acts on the nervous system.

Bungarus caeruleus (Common Krait):—This agile dark snake with white cross bars particularly in the posterior region is met with more near human habitations. It should be distinguished from the Lycodon and Oligodon snakes by the presence of one biggish row of hexagonal scales dorsally and the complete ventrals in the caudal region. It is very poisonous but the animal normally avoids biting. The poison acts on the nervous system.

Family Hydrophidæ.

A couple of species of Hydrophis belonging to this family are seen in the coastal areas. These snakes have a compressed tail. *Hydrophis mamillaris* : yellow snake with black stripes is recorded from the Gulf of Cambay.

Family Viperidæ.

Vipera russelli — The common Russell's viper frequents rocky areas with green vegetation. This snake is grey with a triple longitudinal chain of oval dark brown spots which are edged with black and also white dots. It often stays coiled up and hisses loudly and deeply. The poison fangs are very big and its poison is vaso-toxic.

Echis carinatus :—This saw-scaled viper is characterised by the peculiar position it adopts like a figure of 8 and makes a noise by rubbing its scales. It grows to two feet, is grey and has a chain of deep brown marks dorsally. It is very vicious and strikes readily. The poison is vaso-toxic and even if there be no instantaneous death, the patient may suffer considerably.

PART II

CHAPTER 2 — HISTORY

THE HINDU PERIOD.

(B.C.—A.D. 1297)

CHAPTER 2 — History. HINDU PERIOD.

THERE ARE AT LEAST THREE TRADITIONS about the rise or the beginnings of Broach. The Puranic tradition connects it with the Bhṛigus, and their struggle with the Haihaya king Sahāsrārjuna, of Māhishmatī in the Narmadā Valley. However, according to a Buddhist tradition preserved in *Divyāvadāna*, the city of Bharukachchha was founded by Bhiru, who escaped from Sauvīra, when it was destroyed by the advancing sand dunes, as a result of the destruction of Rudrāyana, king of Roruka.[1] While a Jaina tradition says that Bharukachchha was under king Pradyota of Ujjaynī (C. 550 B. C.).[2]

Mauryas (C. 319 B.C.—200 B.C.)

Since inscriptions of Aśoka have been found from Sopara near Bombay and Girnār in Saurāshtra, the intervening region of Gujarat, including the present Broach district must have been under the Mauryas at the time Aśoka (B. C. 273-236). As Aśoka is not credited with any conquests in Western India, it is likely that the whole of the Broach district, along with other parts of Gujarat might have been conquered by Chandragupta Maurya (C. 319 B. C.). This is corroborated by the inscription of Rudradāman at Girnār, wherein it is stated that the Sudarsana Lake was constructed by Vaisya Pusyagupta, a Rāshtriya (governor) of Chandragupta.[3] It is, therefore, very likely that the region was conquered by Chandragupta In this connection, it is interesting to note a tradition given in *RevāMahātmya*[4] which says that Chandragupta and his minister Chāṇakya spent their last days at Shuklatirth, a small village situated at a distance of about 10 miles upstream on the right bank of the Narmadā. The tradition can neither be confirmed nor rejected for want of proper data. The Mauryan power established by Chandragupta continued at least upto the death of Asoka (C. 236 B. C.). One does not know whether Broach was under his successor Samprati or not. But it is certain that with the weakening of the Maurya power at the centre, Western India including Broach might have thrown off its yoke by about 200 B. C.

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* In the revision of this Chapter help has been rendered by (1) Dr. H. D. Sankalia and (2) Prof. R. V. Oturkar.

1. *Divyāvadāna*, p. 586 ed., by Cowell & Neill, cited by Malalasekera G.P., *Dictionary of Pali Proper Names*, p. 365, fn., 6.

2. *Āvasyakachūrni*, Part II, pp. 160-161, cited by Sandesara, B. J., *Jaina Agama Sāhitya mā Gujarat*, (Ahmedabad 1952) p. 41. These traditions seem to have some truth in them For Broach and its vicinity have begun to yield pottery of a Proto-historic period, having an affinity with the Indus valley.

3. Epigraphia Indica VIII, p. 43 ff.

4. *Bomb. Gaz*. (old series) II, p. 464.

CHAPTER 2

History.
HINDU PERIOD.

The history of the period after the Mauryas is confused. We do not know who the successors of the Mauryas in this district were. It is very likely that the Sūṅgas who succeeded the Mauryas in the east did not possibly come to this part. We hear of two Suṅga marches to the south, one to the north-west and thence to the southern ocean under Pushyamitra and the other to the Sindhu with the *asvamedha* under Vasumitra, the grandson of Pushymitra.[1] Even though Tarn thinks that the southern ocean refers to the southern ocean at Palalene and Saurāshtra,[2] it is doubtful whether the Suṅgas ever had the control of the Broach district.

Similarly the Andhras (or Sātavahānas) also do not seem to have conquered the Broach district at this date. The inscription of Khāravela mentions Sātakarni "as the lord of the west". But this 'west' only refers to the regions lying to the west of Orissa. The sway of the Andhras over the Nasik district is confirmed by the discovery of their epigraphs, but there is no evidence to ascertain whether they ruled over the Broach district or not.[3]

Greeks (180 B.C.—100 B.C.)

Until recently it was believed that Apollodotus and Menander of the Indo-Greek (or Bactrian) family had ruled in Gujarat. since their coins were found to be in circulation at Barygaza.[4] But this view is now disproved.[5] Whatever it be. the Greeks were defeated by the Sakas who advanced from Seistan and conquered Abiria on the Indus. Advancing southwards they took Palalene and the Greek provinces of Cutch and Saurāshtra. They might have also ruled possibly Gujarat and in consequence the Broach district also might have been under them for some period. The tradition prevalent in this part of the country mentions that they were driven away from Ujjain by 58 B.C.[6] Whether they lost Gujarat and Saurāshtra or not is unknown.

Kshaharātas and Sātavāhanas (C. 100 A.D.—125 A.D.)

With the Kshaharāta rulers Bhūmaka and Nahapāna we are on firmer ground. (It is believed by some that these were vassals (Rishabhadatta) Kshtrapas of the Kushānas). Ushavadāta the son-in-law of Nahapāna was a governor of Nasik. He mentions in his inscriptions a number of rivers in South Gujarat and his donations in Gujarat. He specifically mentions Bharukachchha as one of the places where he made donations to the Brahmins. This is corroborated by the Jaina tradition preserved in the *Āvasyaka-chūrni*.[7] It mentions that Nabhovāhana was the ruler of Broach and Sātavāhana

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1. Sankalia, H.D., *The Archaeology of Gujarat*, p. 6.
2. *Ibid.*
3. It is however believed that Satakarni 1, and his immediate predecessors might have wielded some influence over Saurashtra. *The Age of Imperial Unity, (Bharatiya Vidya Bhavan*, 1751), p. 199
4. Tarn, W. W., *The Greeks in Bactria and India*. (2nd ed.) p. 149.
5. Narain, A.K. *The Indo-Greeks*, (Oxford 1957), pp 68-69, 93.
6. Sankalia, H.D., *op. cit.*, p. 10. This view is subject to alteration as mentioned in fn. 4 on p 2.
7. Sandesara, B. J., *op. cit.*, pp.91-93.

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was the ruler of Pratishthāna. Their struggle for power is depicted by the Jaina tradition in which this ruler was defeated by Sātavāhana. This is again borne out by the inscription of Vāsishthiputra Pulumāvi, according to which Gautamīputra Sātakarni inflicted a crushing defeat on the Kshaharātas. It appears, therefore, that the Kshaharātas were overthrown by the Sātavāhanas somewhere after 125 A.D. The continuance of their rule is also indicated by the discovery of coins with elephant, tree symbol and inscribed copper coin of Siri Sātakarni from Kārvān, about 25 miles to the northeast of Broach, and others from Kamrej in the Surat district.[1]

Kshatrapas (125-304 A.D.)

The Sātavāhana or Andhra conquest was short-lived, because we find by 150 A.D. another house ruling in this area. These were the Kārdamakas who were the discendants of Chashtana, the son of Chasāmotika (or Ysāmotika). His grandson Rudradāman I was a very powerful ruler, who held sway over large parts of western India. He is credited in the Junagadh inscription with the conquest of Sātākarni, lord of the Dakshināpatha. Thus the Broach district must have passed under the control of the Kshatrapa rulers. Many of these rulers are known through an excellent series of silver coins which imitate the Greek drachmas.[2] The district might have been reconquered temporarily by Yājñasrī-Sātakarni (A.D. 174-203) of the Sātavāhanas. After this, the district might have come under the sway of the Ābhīra Isvarasena. He and his successors ruled for probably 67 years.

Kshatrapa Branch Line (304—390 A.D.)

Towards the beginning of the 4th century A.D., the Kshatrapas lost their power and a new house of Kshatrapas is seen ruling over this area. Kshatrapa Visvasena is possibly the last ruler of the old branch and he was succeeded by Kshatrapa Rudrasinha II, the son of Svāmī Jīvadāman who might have been the relative of Visvasena. The last ruler of this line is Svāmī Rudrasimha III. During his life time, probably in 390 A.D., Gujarat was annexed by the Guptas.

Guptas (390 A.D—470 A.D.)

The Gupta ruler who successfully defeated these Kshatrapas was probably Chandragupta II. The discovery of the coins of Chandragupta II, Kumāragupta, and Skandagupta from Gujarat suggests that Broach district along with Gujarat formed a part of the Gupta Empire.

Traikūṭakas (470 A.D.—500 A.D.)

Taking advantage of the weakening of the Gupta power, a part of their western empire was possibly conquered by the Traikūṭakas, from South Gujarat and Konkaṇ. These Traikūṭakas boast of having performed an *asvamedha* sacrifice; and date their inscriptions in their own specific era. Whether they ruled over the Broach district or not, is a moot point. The region around Surat was definitely in their possession. The Narmadā might have served as a boundary between the Traikūṭakas and the northern rulers.

1. See *Journal Numismatic Society of India*, XII, pp. 28-30.
2. For a fuller history of the period see *The Age of Imperial Unity* (*Bhartiya Vidya Bhavan, 1951*), pp. 178-216

CHAPTER 2

History.
HINDU PERIOD.
Vākāṭakas
(C 500 A.D.—
C. 520 A.D.)

By about 500 A.D. the power of Traikūṭakas was probably crushed by the Vākāṭaka king Harisena, whom an Ajanta inscription[1] credits with the victory over Lāṭa and Trikūṭa. It is possible, therefore that the Vākāṭakaṣ might have been the overlords of Broach for some time. After C. 520 A.D. Vākāṭakas are heard of no more.

Kaṭachchuris
(520-610 A.D.)

The next rulers of this area were possibly the Kaṭachchuris (later known as Kalachuris). After 520 A.D. we hear the name of Saṁgamsīmha,[2] who was governing the area between the Tāpī and the Narmadā. From Broach he donated Soṇavvā-grāma, modern Sunāo Kala or Sunāo Khurad to Brahmins from Broach. The places mentioned by him are situated in the Broach district. The overlord of Saṁgamsiṁha is not directly known. But from the reference in the Sarsavani Grant of Buddharāja,[3] one can infer that the overlord of Saṁgamsiṁha might be the powerful Katachchuri king Krishnarāja. The Sankheda copper plate of Sāntilla,[4] however, mentions Nirihullaka and his overlord Saṁkarana (who is identified as Saṅkargaṇa, the Katachchuri king). If this identification is valid one can infer the Kaṭachchuri domination over Gujarat. This has otherwise got to be inferred because we know from other evidence that the Kaṭachchuris ruled Western Malawa, Konkan and Northern Maharashtra. The Grant refers to the villages situated in the Baroda district. The above mentioned Sarsavani plates refer to the following villages in the Bharuccha Vishaya . Debaka, Brihannārikā and Kumārivadao. These are now situated in the Baroda district and Gorajja is in the Panchmahal district. This fact suggests that the older Bharukachchha Vishaya was probably much larger and included many parts of the modern Baroda and Panchmahal districts. The Kaṭachchuris were ousted from Gujarat by the Chālukyas sometime by A.D. 609.[5]

Gurjjaras (610-734-35 A.D.

By 630 A.D. the Kaṭachchuris lost the Broach district. The ruling dynasty now was that of the Gurjjaras (later called Gurjaras). Their capital was at Nāndipuri. modern Nāndod (Rajpipla). These Gurjjaras are supposed to be a branch and feudatories of the Gurjara-Pratihāra dynasty of Jodhpur. and Dadda I of the Broach branch is identified with one of the sons of Harichandra, the founder of the Jodhpur branch. However, the records of this dynasty are not only silent about this relationship. but do not say anything about their origin or relation to any dynasty. It is only the three forged grants which trace their discent from a Gurjjaranripa. Including these grants, the dynasty is represented by thirteen grants.

The genealogy of these rulers presents a problem. The earlier grants of Dadda (II) mention three rulers whose names Dadda, Jayabhaṭa and his son Dadda are identical with those mentioned in the

1. Archaeological Survey, Western Circle, IV, p 127.
2. E.I., X, p. 72. This might also be a foreign tribe. see The *Classical Age, (Bharatiya Vidya Bhavan, 1954)*, p. 194
3. E.I., VI., p. 294.
4. E.I., II, p. 21.
5. For a more detailed account of the dynasty see *The Classical Age (Bharatiya Vidya Bhavan. 1954)*, pp. 194-197.

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later grants, but their epithets *Sāmanta*, *Vitarāga* and *Prasāntārāga* are not only mentioned in the later grants but new ones "Protector of the Lord of Valabhi" and *Bāhusahāya* are applied to Dadda (I) and Dadda (II) in the grant of 456 and in the recently published grant of 486. So the natural presumption is that the earlier and later grants refer to two sets of individuals by the name of Dadda (I), Jayabhaṭa and Dadda (II). However, Dadda (I) of the later grants must be identified with Dadda (II) of the earlier grants. For the latter lived in 630-40 A.D., exactly the time when Harṣa attempted to invade western and southern India, but was held back by Dadda (I) of the later grants and by Pulakesin (II) in or before A.D. 634. Likewise we have also to identify Jayabhaṭa (II) of the grant of 456 with that of the grant of 486 as their descriptions are identical. The Gurjjara geneology should then stand as follows :—

Dadda (I) — Sāmanata C. 580 A.D.

Jayabhaṭa (I) — Vītarāga C. 605 A.D.

Dadda (II) — Prasāntarāga, 'Protector of the Lord of Valabhī" C. 620-41 A.D.

Jayabhaṭa (II) — C. 655.

Dadda (III) — Bāhusahāya 675 — 76 A.D.

Jayabhaṭa (III) — Mahāsāmantādhipati 709-710 A.D.

Ahirole (I) — Mahāsāmantādhipati C. 725.

Jayabhaṭa (IV) — Mahāsāmantādhipati C. 734-5.[1]

The findspots of the Gurjjara grants — Kaira, Sankheda, Navasari, Kavi, Umeta, Bagumra and the donated villages are distributed in the Baroda, Broach and Surat districts.

The grants of Dadda dated 380[2] and 385[3] donate a village Sirishapadraka in Akrūresvara Vishaya to Brahmins. This can be identified as Sisodara on the Narmadā. Akrūresvara is Anklesvar, the taluka head quarters. The Sankheda grant of Dadda Prasāntarāga of 392[4] mentions Suvampalli Kshirasaragrāma, Kakkuṭavallikā, Aṭavīpṇṭaka in the Saṅgamakheṭaka Vishaya. These villages cannot be traced but it is probable that they might be discovered in the Sankheda taluka and its adjoining territory, because of the identification of Saṅgamakheṭaka with Sankheda, the taluka head-quarters in the Baroda district. The villages mentioned in the Navsari grant dated S. 456[5] of Jayabhata can be easily identified.

1. Sankalia, *op. cit.*, p. 16 and *E. I.*, *XXV*, p. 292.
2. Indian Antiquary, XIII, p. 81, 16.
3. Imperial Gazetteer, p. 88 H.
4. *E. I.*, V p. 37 H.
5. *I. A.*, XIII, p. 70 ff.

These towns and villages : Kāyāvatāra, Korillapathaka, Samipadraka, Golikāgrāma, Dhāhaddha, are the modern Karvan, Koral, Sondarna, Kosampur, and Dhavat, in the Dabhoi and Karjan talukas of the Baroda District. The Kāvī grant of 486 1 of Jayabhata, however mentions Kemajju — Chīrakaha-grāma, Jambhā-grāma, Goliavali-grāma, Sihūgrāma in Bharukachha Vishaya. These could be identified with Kimoj, Sagari (?), Jamadi, Golel in the Jambhusar taluka of the Broach district. The other grant of Jayabhata (III)2 of 486 mentions Mannātha-grāma (Manād?) in Bharukachchha Vishaya. A recent grant of Jayabhaṭa III,3 though discovered from the Nasik district, not only extends the period of his reigns up to (Katachchuri) Samvat 461 (A.D. 709-10), that is by five more years, but mentions the villages Tauraṇaka (modern Toran), Jayapura (probably Jitpur), Vidverka and Bhūtiṣohi (Bhūchhād), the river Karillinī (modern Karjan) in the Nāndipuri Vishaya. Thus the small and dependent kingdom of the Gurjjaras had at least five large divisions (vishayas) : Antarnarmadā, Aṅkulesvara, Bharukachchha, Nāndīpura and Saṅgamakheṭaka, that is almost the whole of the present Broach district, including the former state of Rajpipla, and a part of the Baroda district. Of the grants regarded as forgeries only one — the Ilao grant is important, as it mentions the villages Haidham, Vārṇera, Varaṇā, Suṅṭhavāḍa and Araluam in the Akruresvara Vishaya. These villages have still not been properly identified, whereas others refer to villages which are situated in the Surat and Navsari districts.

These Gurjjaras were sandwiched between the powerful Maitrakas of Valabhī, and the Chālukyas of Navasari, hence they did not attain independent power, but were possibly the feudatories of these powers by turns. Neverthless, because of its key position, and possessing one of the most important ports on the Western coast, the Gurjjars played a vital role in maintaining the balance of power. They twice went to the help of Valabhī, once against Harsha, and second time against the Arabs. During the period of Dadda II, the famous Chinese traveller Hiuen Tsang visited Broach. He mentions it as a separate kingdom with the land impregnated with salt, so that shrubs and trees are few and far apart. This description suggests that the traveller must have moved in the coastal talukas of Vagra, Amod, Jambusar etc., where the saline marsh is of this nature.

How the Gurjjars disappeared is not clearly known. The Arab invasion under Junaid might have wiped them out or they might have been replaced by another vassal chief by their overlord, the Gurjjaras of Avanti.4

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1. *I. A.*, V. p. 110.
2. *E. I.*, XXIII, p. 147.
3. *E. I.*, XXV, p. 292.
4. For a more detailed history of the period see *The Classical Age (Bharatiya Vidhya Bhavan)*, pp. 153-155, 172, 202, and *The Age of Imperial Kanauj (Bharatiya Vidya Bhavan)*, pp. 98-101.

CHAPTER 2 — Administrative History. HINDU PERIOD. Sendrakas

Contemporary with the Gurjjaras were the Sendrakas, a feudatory family of the Chālukyas of Badami which ruled in Khandesh and parts of the Broach and Surat Districts. Three new copper-plate grants, two dated in the Saka era and one in the Ched have been recently published.[1] These with the previously known[2] give the following geneology :—

Nikambha or Bhānusakti.

Adityaraja or sakti.

Nikumbhallasakti or Allasakti 653 A.D., 655 A.D. (2).

Jayasakti 680 A.D.

While the place-names mentioned in the grants now fall outside, in the West Khandesh District, the Nagad Plates refer to a donation made by Nikumbhallāsakti, when he was camping near Shrī Kāyāvatāra-*tapovana*. This is Karvan, the famous *tirtha* associated with the *avatāra* of Siva as Lukulisa. It is also mentioned in Gurjjara records.

From this new information it would appear that the old Kaṭachachhuri empire was split up into several fragments. Southern Gujarat or the coastal tract was ruled directly by the Chālukyas. The hinterland, or the Desha now forming the eastern parts of the Surat, Broach, and Khandesh Districts was given to the Sendrakas, while the Gurjjaras occupied the region around Broach and Baroda. It is also interesting to note that Nandipuri, the capital of Gurjjaras and later the Chālukya of Lāṭa was perhaps an important, strategic place, for the place leading to it is called "Nāndīpurīdvāra". This is the present Nandarbar, some 60 miles east of Nandod.

Maitrakas

But before this happened, it appears that Broach district had passed under the suzerainty of the Maitrakas of Valabhī. Dharasana IV had camped at Broach in A.D. 648. In 676 Siladitya III had donated land in the village of Antikā in the Bharukachchha Vishaya. Thus for nearly 30 years at least the district was directly under the Maitrakas. However, sometime before A.D. 704, it was reconquered by the Gurjjaras, as Jayabhata III Navasari Grant refers to Kāyāvatāra (Karvan) and Korillāpathaka.[3]

Cālukyas

It is also possible that for a short period, either before the actual Arab invasion or after it, the region was under the direct rule of the Chālukyas of Navsari, because the Rāshṭrakūṭas are reported to have fought with the Chālukyas of Kaira, thus implying the latter's possession of Broach as well.

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1. *Epigraphic Indica*, Vol. XXVIII (1950), published in 1952, pp. 195-205, and Vol. XXIV (1952), published in 1955, pp. 116-121.

2. *Indian Antiquary*, Vol. XVIII, p. 265.

3. For a map showing these places, see Shastri Hariprasad, G., *Maitrakakālin Gujarat* (in Gujarati) Vol. I, after p. 338. This is also mentioned as Korilla *Chaturāsiti* (84) by the recently published grant of Dadda (III). See *E. I.*, XXVII (1947-48), pp. 197-201.

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The Arabs were defeated by Avanijanāsraya Pulakesi of Navsari. When they left this area, the Chāhamānas are found ruling here.[1] The Chāhamāna ruler Bhartrivaddha, was a feudatory of Nāgāvaloka who is identified as Nāgabhaṭa I, the Pratihāra king, and had probably migrated from Chitor. Bharitrvaddha donated Arjunadevīgrāma in the Akruresvara Vishaya.

Rāṣṭrakūṭas (750-975 A.D.)

What happened to the Chāhamānas is not known, but by 750 A.D. Dantidurga, the Rāshṭrakūṭa ruler over-ran Lāṭa as far as Mahī in the north. Thus the Broach district came under the direct control of the Rāshṭrakūṭas of Malkhed. The district was under their control along with other parts of Gujarat during the period of Krishṇa (I), Govinda (II), and Dhruva (I). But his son Govinda (III) handed over the Lāṭa-maṇḍala to his brother Indra (III), in about 808 A.D.

From this period onwards upto C. 888 A.D. Broach district was under the Rāshṭrakūṭas of Gujarat. After 888 A.D., it once more passed into the hands of the imperial Rāshtrakūṭas.

During this period also land grants were made in the Broach district. It then formed a part of the Lāṭāmaṇḍala (Central and Southern Gujarat), the capital being Khetaka (Kaira). From Khetaka, Karka II granted the village (grāma) Majjarggani. This was bounded by the villages of Shandaka on the east, Chittolāpalli on the south, Kraṇḍovaka on the west, and Sthombhārikā.[3] He also re-granted the village of Samīpadraka,[4] which was formerly donated by the Gurjjara king Jayabhaṭa. His brother Govindarāja gave away to a donee from Kāpikā (Kāvi)[5], the village of Thūrnavi (Thanavi), Vaṭapadraka (Wardla), Jadrāṇa (Jantran), Kālīyara (Kaher) and Ruhnāḍa (Runad). These are all situated in the Jambusar taluka. Then in Saka 852 (A.D.930), Govinda granted Kevañja, near Kāpikāmahāsthāna.[6]

Paramāras

Late in the 10th century the Paramāras under Sīyaka II conquered parts of northern and central Gujarat. But it appears that the region covered by the present Broach district remained outside their sway.

Chālukyas of Laṭa

It seems therefore that it was from the Rāṣṭrakūṭas that Bārappa, a general of the Chālukyas of Kalyāni, got back southern Gujarat. Though Bārappa and his descendants had to struggle to retain its possession with the Chaulukyas of Anahilapāṭaka, (the former even losing his life in the battle against Chāmuṇḍa), still the entire region

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1. For different views on this see *The Age of Imperial Kanauj (Bharatiya Vidya Bhavan)*, p. 2, and p. 41.

2. E.I., XXV, p. 292.

3. *Annual Report, Archaeological Department, Baroda State, Baroda*, 1940, pp. 22-28.

4. Journal of the Bombay Branch Royal Asiatic Society, XX (Old Series), p. 131.

5. *Ind. Ant.*, V, p. 144.

6. *E.I.*, VIII, p. 26.

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including the Broach district remained under their possession for nearly a 100 years. For Kīrtirāja had granted a village in 999 A.D. in the Baroda District. Trilochanapāla defeated the Chālukya Karma at Patan in 1067 A.D. donated the village of Haripura in Nāndīpura Vishaya for the maintenance of the Pāṭhasālā at Shuklatirtha.[1] Haripura is now represented by a deserted site opposite Shuklatīrtha.

Chālukyas

However, in 1174 A.D. the Chālukyas succumbed to the Chaulukyas and Lāṭa became a province of their growing empire and remained so under, at least, Kumārapāla (1143-1174 A.D.), if not under the latter's successor Ajayapāla.

Paramāras

About 1200 A.D. the country south of the Narmadā was re-conquered by the Paramāra king Subhaṭavarman. And in 1213 A.D. his successor Arjunavarman made a grant from Broach.[2] However the Paramāras never had an undisputed sway over Lāṭa. Because of its ports and rich alluvial soil the Yādavas of Deogiri had also an eye on it. It was therefore repeatedly attacked by Singhana, as well as by the Chaulukyas. In this triangular contest, the Chaulukyas succeeded when under Vīradhavala and Visaladeva, Vastupāla and Tejahapāla reconquered Lāṭa, including Broach. Contemporary with the Vāghelā dynasty was possibly that of the Vajāvapayanas.[3] Their first king seems to be Chāchigadeva. The geneology of this dynasty according to the grant of Jaitrasimha is as follows :—

Chachigadeva
|
Sodhala
|
Jesala
|
Visaldeva —— Jaitrasimha (1291 A. D

From this grant it is clear that they were possibly the feudatories of the Vāghelas. This dynasty had to fight with the rulers of Malwa and Yādavas of Deogiri, possibly as an ally of the Vāghelās.

1. Pandya, A. B. in Vallabha Vidyanagar Research Bulletin, 1958, Vol. II, Issue II.

2. Journal of the American Oriental Society, VII, p. 32, and Sankalia, *op. cit.*, p. 27.

3. Pandya, A. B. in Vallabha Vidyanagar Research Bulletin, 1958, Vol. II, Issue II.

Jaitrasimha donated Takari-grāma in Nandapadriya desa in Samvat 1347 (1291 A.D.). It is identified as Takari in the Nandod Taluka, Broach district. This grant suggests that some parts of Broach district during the Vāghelā dynasty were under their feudatories. What happened to this dynasty is still not known for want of data. Possibly they might have suffered reverses at the hand of the Muslims in 1298 A.D. along with the last Vāghelā king Karna. After this date small Hindu States flourished in the eastern part of the district but they were not strong enough to repel the Muslims from the plains.

THE MUSLIM PERIOD (1297-1772)

Paramāras

RELATIONS OF MUSSALMANS WITH BROACH date as far back as the seventh century. In fact it is one of the places first attacked by Muslim Arabs. In the fifteenth year of the Hijarat (A.D. 636) the Khalifah Umar appointed Usman, son of Abdul Asi as Governor to Bahrein. Usman sent Hakam to Bahrein and Hakam desptched a fleet to Barauz (or Broach).[1] Al Biladuri (A.D. 892-93) speaks of Junnaid, the son of Abdur Rahman Al Murri, on his appointment to the frontier of Sindh in the Khilafat of Hisham bin Abdal Malik (A.D. 724-743) sending an expedition by land against Barus (Broach) and overrunning Jurz[2] (Gujarat). Ibni Khurdadbah (A.D. 912) enumerates Baruh among the countries of Sindh.[3] Broach is next noticed[4] by Al Biruni (A.D. 970-1039) as standing near the estuary of the river Narmada, as 120 miles (30 *parasangs*) from Debal, and as being with Rahanjur (Rander) the capital of Lardes. In describing the coasts of the Persian Gulf and the Indian Ocean Al Masudi (A.D. 915-944) speaks of Broach as *Barus* from which came the famous lance shafts called *Barusi*.[5] Al Idrisi (A.D. 1100) mentions[6] Baruh as a large town well-built of brick and plaster, the inhabitants rich, engaged in trade and ready to enter upon speculations and distant expeditions, a port for vessels coming from China and Sindh, being two days' journey from Saimur (Cheul) and eight days from Nahrawara Anhilwara Pattan.

The period of Muslim ascendancy over Broach, lasting for about four centuries and three-quarters, contains four divisions, the administration of the early Musalman governors of Gujarat, ninety-four years, from 1297 to 1391; the government of the Ahmedabad kings, 181 years, from 1391 to 1572; the supremacy of the Delhi emperors, 164 years, from 1572 to 1736, and the rule of a family of almost independent chiefs, thirty-six years, from 1736 to 1772. At the beginning

1. Al Baladuri (A.D. 892) in Elliot's History of India I. 116.
2. Al Biladuri (A.D. 892) in Elliot's History of India I. 126.
3. Ibni Khurdabah in Elliot (History of India), I. 14.
4. Al Biruni in Elliot (History of India, I 49-66), and Sachau's Arabic Text, 100.
5. Barbier DeMeynard's Arabic Text of Les Prairies D'Or, I. 239.
6. Al Idrisi in Elliot (History of India), I, 87.

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of the fourteenth century, when his capital was taken, the Broach district, together with the other more settled parts of the domnions of the Anhilwara sovereign, fell into the hands of the Musalmans. Half a century after (1347), during the reign of Muhammad Tughleg, rebellions arose all over Gujarat and the Sultan resolved upon moving personally to that region to suppress them. In fact he was destined to spend the last six years of his life (1345-51) in Gujarat, Kathiawar and Sindh regions. Arriving near the hills of Abu on the confines of Gujarat, the Sultan deputed Shaikh Muiz-ud-din to Patan Anhilwad as the governor of the province. The Sultan also despatched an advance contingent against the rebel nobles, who, being defeated, retreated with their wives and families in the direction of Daulatabad, the capital of the Deccan province. Proceeding by slow marches towards Broach, the Sultan sent another force in pursuit of the fugitive Amirs who were overtaken on the banks of Narmada and utterly routed. Not content with this, he sent orders to arrest and execute even the loyal aged men of Broach whose only offence was that they belonged to the order of those foreign Amirs against whom his wrath was directed.1

Arriving at Broach, which now became his headquarters the Sultan found that the revenues of the districts of Broach and Cambay as also of the whole province of Gujarat were several years in arrears. He thereupon appointed Collectors who adopted the most rigorous measures and extorted large sums from the people. In pursuit of his policy of striking terror amongst his subjects, all persons who had been connected with the insurrection or who in any way sympathised with it were seized and put to death. The Sultan's stay at Broach must have left far from happy memories among the people of the city for a long time after his departure to Daulatabad where he had now to go in about a year's time to deal with the rebellious forces in the Deccan. The absence of the Sultan from Gujarat emboldened the nobles to make another attempt to throw off his authority. The rebel leader Taghi was a cobbler by birth and originally a slave, but he was an astute capable person and won over to his side several of the Hindu chieftains of the province. Taghi proceeded at the head of the rebels, plundered Cambay and turned towards the fort of Broach and attacked it. On receiving the intelligence, the Sultan left Daulatabad for Broach before he could complete the settlement and subjugation of the Deccan. Seeing the Sultan approaching Broach, Taghi retired towards Cambay. The emperor sent Malik Yusuf Bukhra against Taghi, but he was defeated by Taghi. Thereupon the Sultan advanced against him in person. Taghi fled from Cambay to Asawal and thence to Patan Anhilwad. In the course of the pursuit, the rebellion of Taghi was suppressed, but Taghi escaped with his family towards Kathiawar. Thereupon the Sultan pursued him thither and thence towards Thatta in Sind;

1. Commissariat . History of Gujarat — Page 32.

but before he could put up a fight with the ruler of Thatta who had given Taghi an asylum, the Sultan breathed his last (1351).[1]

When Muzaffar Shah, the founder of the line of Ahmedabad kings, assumed in 1391 the position of an independent ruler, the district of Broach, with the other parts of the plain country of continental Gujarat, was included within his dominions. On the death of Muzaffar (1410) his grandson Ahmed succeeded him; but there was a conspiracy to set up Firuz Khan his uncle on the throne. The Amirs participating in the conspiracy mobilised their forces and marched first towards Cambay and then towards Broach. Firuz who was taking refuge in the fort of the city was, however, soon overpowered by Ahmadshah, who subsequently in 1413, founded the city of Ahmedabad. For the greater part of the remaining 161 years (1411-1572), during which the Ahmedabad dynasty continued to rule over Gujarat, Broach district and the territory in the neighbourhood of the headquarters of the government, would seem seldom to have been the scene of war. In 1534, when the emperor Humayun made his rapid conquest of the dominions of Bahadur Shah, Broach, with the rest of Gujarat, fell into the hands of the Moghuls. But this possession lasted only for two years. In 1536 the city was retaken by a united attack by sea and land, conducted in favour of Bahadur Shah by two of his nobles, Khan Jehan and Rumi Khan the builder of the Surat fort.[2] About this time, the Portuguese who were anxious to develop their trade and also to get a foothold on the sea coast of Gujarat were active in the gulf of Cambay. They opened negotiations with Bahadur Shah, who met his death off Div by being treacherously murdered (1537). Their activities affected Broach once in 1537 and again in 1547. In November, 1546 De Castro got a great victory against the Muslim power at Div. Soon after this De Castro starting towards Goa in April, 1547 sent Captain D. Jorge De Menezes to the Gulf of Cambay to strike terror in that region. Broach was then a rich city, 'whose stately buildings presented him with the politeness of Europe'. Entering the mouth of the river at dead of the night, De Menezes and his troops fell upon the unarmed and defenceless population which being awakened from sleep was in the utmost confusion and terror. After a merciless slaughter, the invader ordered the houses to be sacked and set on fire and in a few hours the nobility and the people, the gardens and the houses were reduced to ashes. This action was so famous among the Portuguese soldiers that they gave Menezes the surname Baroche, as the ruins of Carthaga gave Scipio, the name Africans.[3]

The Portuguese seem to have been participating in the politics of Gujarat even later; for we notice that in 1554 when Ahmed III came to the throne, one Nasir-ul-mulk refused to take the oath of allegiance and taking the city of Broach under his control, raised

1. Ibid 40.
2. Ershinem's History of India, II, 77.
3. Commissariat : History of Gujarat, pp. 450-51.

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a standard of rebellion against the Emperor and invited the Portuguese to help, promising them Daman, Surat, Cambay and many other coastal places if timely help were extended to him. The rebellion, however, was easily suppressed, particularly with the help of a fleet from Egypt that had just arrived at Surat at that time. Subsequently, again in 1559, one Imad-ul-mulk who had been an officer at Broach was invited by his brother-in-law Khudawand Khan at Surat and was treacherously murdered there, the Portuguese having incited Khudswand Khan to do so. The body of Imad-ul-mulk was buried by his son Changiz Khan in a tomb on a hillock near Broach, which is associated with the name of Baba Rahim.

Changiz Khan who succeeded his father was an ambitious man who soon got the opportunity to fish in troubled waters, at Ahmedabad. After the murder of Ahmed III in 1561, one boy prince was placed on the throne by Itimad Khan, the regent and king-maker at the capital, under the name Muzaffar III. Nobody, however, was willing to obey Itimad Khan. Thereupon, Changiz Khan proceeded from Broach, got his hold over the capital and held his sway there upto 1567, when he too met his death by being treacherously murdered by one Jhujhar Khan..

With Changiz Khan's name are associated the silver coins popularly known in Baroda, Broach, and Surat districts as Changizi-Mahmudis. Mahmud I Begada was the first to coin this piece in preference to the heavy Silver Tankas. Mahmudi varied in weight from time to time but under Muzaffar III it came to acquire a mint-standard of 118 grains and it was probably this coin that came to be popularly known as Changizi-Mahmudi in those southern parts of Gujarat which were directly under Changiz Khan. In course of time they came to be minted at Surat and were in circulation long after the Sultanate had passed away and the Mughal imperial coinage introduced.

After the murder of Changiz Khan the country round Broach passed under the sway of the Mirzas who originally belonged to the royal family of Khurasan. They came to India in the reign of Babar and were highly honoured by the Moghuls. But they raised an insurrection against Akbar and therefore were driven by him from Hindustan, whereupon they joined Changiz Khan at Broach some time after he had succeeded to the estate of his father. After Changiz Khan's murder, Imad Khan again came to power at the capital but was unable to cope with the situation. He therefore invited the Mirzas from the south, but at the same time he decided to play a double game and invited Akbar also to annex the kingdom of Gujrat to his empire so that it might not fall into the hands of the Mirzas. Akbar invaded Gujarat and the Mirzas submitted to him but not without a struggle. In the course of his conquest of Gujarat, Akbar laid siege to Surat, captured the fort and then on his return journey passed through Broach where Changiz Khan's mother waited upon him and prayed for revenge of the dastardly murder of her son.

Akbar acceded to her wishes, made careful inquiries, and then caused Jhujhar Khan to be trampled under the feet of an elephant in the presence of a large number of persons.[1] Thus ended the Sultanate rule of Gujarat which lasted for nearly a period of two centuries (1407-1573). On the whole Broach seems to have served during this period as one of the storm centres of the recalcitrant groups rising against the ruling power of Gujarat from time to time.

Towards the end of the Sultanate period, i.e., in the reign of Muzafar Shah III (1561-1572), the last of the Ahmedabad kings, the lands of Broach were in the possession of Rustam and Jahangir Khan, the sons of Imad-ul-mulk. At that time the Broach territory consisted of the following twelve fiscal divisions.—[2]

Statement showing the Area and Revenue of Broach

1561-1572.

No.	Name	Villages.	Revenue. In Changizis (1¼ Changizi one rupee)	Revenue. In pounds Sterling.
1.	Broach	161	3,000,000	240,000
2.	Hansot	36	400,000	32,000
3.	Dehejbara	12	150,000	12,000
4.	Goralbara (Koral)	12	200,000	16,000
5.	Urpar (Olpad, Surat)	106	1,200,000	96,000
6.	Chormandvi (Mandvi, Surat)	1	50,000	4,000
7.	Kala (Galla)	36	400,000	32,000
8.	Jambusar	56	800,000	64,000
9.	Oklesar (Ankleswar)	55	600,000	48,000
10.	Atlisar	36	200,000	16,000
11.	Tarkesar (Surat Dist.)	12	100,000	8,000
12.	Amod and Makbulabad.	36	400,000	32,000
		559	7,500,000	600,000

In the year 1572, after Muzafar Shah III gave up his dominion in Gujarat to the emperor Akbar, Broach was captured, and for a short time held by the rebel Husain Mirza. On the approach of Akbar the Mirza fled, and the lands of Broach were granted to Mirza Kut-u-din Atka. Ten years later (1583) intrigues arose in Gujarat,

1. Commissariat : History of Gujarat, Page 517.

2. Mirat-i-Ahmadi (Bird's) 119. In the Ain-i-Akbari (1590) Broach is described as a great emporium, to which the ports of Kavi, Gandhar, Bhalwut (Bhadbhut), and Bhiguresh (Bhagwa in Olpad) belong. Gladwin's Trans., II., 66.

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and Muzafar Shah was invited to escape from his residence in Hindustan, and put himself at the head of his old followers. So successful was this revolt that along with other places, Broach was occupied by the insurgents. But Muzafar Shah failed to keep his hold over the territory he had regained. In the next year, after a siege of seven months, the town of Broach was captured and the country with its neighbourhood, was again brought under the rule of Akbar.

European traders, 1614-1620.

In the year 1613 Broach was visited by Aldworth and Withington, English merchants, and in the next year (1614), on Withington's return from Sind, a house in Broach was hired for a factory. In 1616, Sir Thomas Roe obtained from Jahangir permission for the English to establish a trading-house at Broach on very favourable terms. They were to be allowed to live near the governor, and the decree commanded no man to molest them by sea or land, or take any customs of them.[1] The chief of the factory at Broach was subordinate to the president at Surat. He was one of the senior men, who besides lodging and boarding at he company's expenses, were allowed £40 (Rs. 400) a year during their stay in the company's service. Men in charge of out-stations are described by Fryer (1673 1681) as "in their several seignories behaving themselves after the fundamentals of Surat, and in their respective factories living in like grandeur. From the position of chiefs of Subordinate factories they rose successively to be of the great council in Surat".[2] The Dutch were not long in following the example of the English. In 1617 they also settled at Broach and established a factory. But the Broach factory does not seem to have risen to much consequence. In the eighteenth century there was but one junior merchant and one bookkeeper, with a few servants under them.[3]

During the reign of Akbar and even a century after, Broach continued to enjoy its eminence as a port of international trade. *Ain-i-Akbari* refers to it as a maritime town of first rate importance. It had also a strong fort originally built by Bahadurshah to oppose the Portuguese activity at Div and Cambay. Mandelslo, a German traveller visiting India in 1638, describes Broach as 'so well built that it may be numbered amongst the strongest places of all the Indies'. Describing the industries of the town he further says 'the majority of the inhabitants are weavers who produced 'baftas' finer than any made in Gujarat. Hills to the south-east had agates from which seals and handles for knives and drinking cups were made, Jambusar produced Indigo'. Mandelslo has also referred to the English factory at Broach. The British traders on their opening a factory at Broach at the beginning of the seventeenth century were anxious to purchase yarn from the local producers residing in the city, but they had to encounter some difficulties; for the local weavers were afraid that

1. Orme's Historical Fragments, II., 371.
2. Fryer's New Act, 85.
3. Stavorinus, III, 109.

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they would run short of their supply and they organised a boycott against the British purchasing yarn. Sir Thomas Roe, therefore, urged upon the British traders to make purchases of cloth instead of yarn from the weavers of Broach and Cambay.[1] This prosperous town was, however, severely affected by the famous famine of 1630, for Moreland quoting from a letter written in September, 1635, describes[2] Broach as 'broken'. 'The people are fled and dead and now want of employment makes man afraid to return. As the weavers left the city the British ships could not get cargo. The merchants therefore had to give doles of corn to the weavers to persuade them from running away and making them work at their looms'.

Turning to the events of military and political importance it may be noted that the first Moghul invasion of the Deccan was intended to pass through Gujarat via. Broach Murad starting for the invasion of Ahmednagar in 1595 assembled his forces at Broach. The choice of this route can be easily accounted for, both geographically and historically. It will be seen that the North is separated from the South by the range of Vindhya and Satpura mountains and to pass through Gujarat was to take to a route that was comparatively smooth and also one that passed through the region over which Moghuls had then obtained complete control. It will be remembered that in the pre-Musalman period, Broach was often the bone of contention between the Chalukyas of Patan and the Yadavas of Deogiri and even after the disappearance of those dynasties, the route from Gujarat to the Deccan via Broach must have been used for normal movements and communications. About fifty-five years after the death of Akbar, the attention of Aurangzeb seems to have been directed towards Broach ; for in consequence of the help given by the people of Broach to his brother Dara, Aurangazeb ordered a part of the city walls to be razed,[3] (1660).

The Mahrattas. 1675.

Fifteen years after (1675), a body of Mahratta horse, part of the army of Hambirrav, the commander-in-chief, coming down from Khandesh by one of the passes near Surat, crossed the Narmada and levied contributions in Broach.[4] They found the city unprotected. In 1686 Sambhaji, the son of Shivaji, led a body of troops by hurried marches across the Tapi and Narmada and, within a few hours of their approach, took and plundered the city of Broach.[5] In consequence of this success, Aurangazeb ordered the walls of Broach to be rebuilt, and to commemmorate the sufferings of his army during the siege of 1660, gave it the name of Sukabad, or the dry city.[1] In 1691 an attempt on the part of Aurangazeb to suppress a body of Musalman rebels led to a somewhat serious insurrection.

1. Moreland : India at the Death of Akbar, page 185.
2. Vide 'Akbar to Aurangzeb' by Moreland, page 217.
3. Ham. New Act, I., 145.
4. Grant Duff : History of the Marathas (1863), I., 194.
5. Grant Duff : History of the Marathas (1863), I., 242.
6. Ham. New Act, I., 145.

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Sayad Shahji who was the religious preceptor of the Matias of Khandesh and the memnas of Gujarat, two classes of converted Hindus, closely allied to the Khojas of Kathiawad, was called by Aurangazeb to the capital as Sayad Shahji was known to have been respected by his followers by kissing his toe. Sayad probably being afraid of the consequences that might follow, committed suicide. This enraged his followers who gathered from all quarters and attacked Broach, seized the fort and slew the governor. The insurgents gave fight to the governor of Baroda who was sent to punish them and held the fort against him. Subsequently they resisted his successor Nazar Ali Khan. The success of the insurgents was, however, only temporary. At an unguarded moment some of the besiegers stole over the city walls and opened the gates for their companions. The Memnas were defeated and almost all slain as they sought death either by the sword or by drowning to merit their Saints' favour in the next world.[3]

About the time of the second Mahratta raid of 1686 the English merchants at Broach were carrying on a large trade. But a few years later (1696) the Broach factorymen were, like the other servants of the company in Surat, placed in chains on account of the plunder by the English pirate Avory, of the Musalman pilgrim ships, and for a time the factory was closed. In 1702, on the union of the new English company with the original London company, Broach is mentioned as one of the factories in the Bombay presidency. But before the middle of the eighteenth century both English and Dutch are said again to have withdrawn their establishments,[4] though the latter would seem once more to have returned before the conquest of Broach by the English in 1772.[1]

Nawabs of Broach, 1736-1772.

In 1736, during the government of Abhesing, Abdulla Bed, a Musalman officer, held Broach from the Nizam-ul-Mulk who, shortly before he assumed a position of independence in the Deccan (1722) had, as viceroy of Gujarat, made Broach part of his private estate. This officer who is said to have acknowledged neither the viceroy Abhesing nor the claims of the Maharattas, received from Nizam-ul-Mulk the title of Nek Alam Khan and was the founder of the short-lived line of the Nawabs of Broach. Abdulla died in 1738, and was succeeded by his second son Mirza Beg who assumed the title of Nek Alam Khan the second. Dying in 1752, Mirza Beg was succeeded by the third son of Abdulla. On his death, which happened within three months, the succession was disputed, and no settlement

1. Bombay Gazetteers : History of Gujarat Vol. I, Part I, Page 288.

2. Anderson's English in Western India, 291, Hamilton's New Act, I., 146.

3. In the despatch (10th April) of the commission appointed to inquire into the condition of affairs at Broach in 1777, it is said : "We cannot help remarking that the Dutch still hoist their colours in the factory in and outside of the town, especially as they behaved badlly when the city was being stormed by the British, and it is said General Wedderburn was struck by some one in European clothes." How strong the ill-feeling between the Dutch and English was at that time is shown in Stavorinus' account of affairs at Surat, 1774.

made for two years. At last Syed Idrus, the head of a family which had long exercised a powerful religious influence at Surat, espousing the cause of Mirza Ahmad Beg, a grandson of Abdulla Beg, the first Nawab, placed him in possession of Broach. Mirza Ahmad died in 1768, and was succeeded by his son Mazad Khan, the last of the Broach Nawabs.[1]

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THE BRITISH PERIOD (1772-1885)

THE POLITICAL CONNECTION OF THE ENGLISH COMPANY with Broach dates from their capture of Surat in 1759.[2] There were certain claims of the Nawab of Surat upon the customs revenue of the port of Broach. These, together with a sum due to the English on account of an excessive levy of duties on cloth, amounting altogether to Rs. 1,50,000 the Nawab of Broach was called upon to pay. The English undertook to collect the sum from the Nawab of Broach after having come to previous undertaking with the Nawab of Surat that two-thirds of the money so recovered would go to the Company to pay them for their trouble. In the early months of 1771 a body of the company's troops in the neighbourhood of Surat was engaged against the Kolis. In the hope that a military display might induce the Nawab to propose some settlement of the claims made against him, the chief of the Surat factory was directed to transport this force by sea to the neighbourhood of Broach. These instructions the factors at Surat did not carry out. A month later (April 21st) they wrote to Bombay that, instead of sending them by sea, they had determined to despatch the troops to Broach by land. In spite of further orders to give up the expedition against Broach and embark the troops for their return to Bombay, preparations were continued at Surat. Even then some further delay occured; and it was not till the 27th April that the march from Surat to Broach was actually begun. The nominal commander was Colonel Cay; but that officer was instructed to observe all orders he received from Mr. Gambier, one of the committee appointed to carry on the neigotiations with the Nawab of Broach. The expedition was accompanied by 700 men, belonging to the Nawab of Surat, under the command of the *Bakshi*, or paymaster. On the march they were attacked by a force sent by the Nawab of Broach, about two thousand strong, but the attack was beaten off with small loss on the side of the English, though the assailants, it is said, suffered considerably. On the 1st of May the troops reached the bank of the Narmada opposite the city of Broach. Posting themselves on an island in the river, they directed their guns against the wall of the city and succeeded in making a breach. A party was sent in boats to effect an entrance,

First Expedition
1771

1. Bombay Secretariat Records, Political Department, Vol. 23 1864, 235 to 242.

2. This account has been prepared from the correspondence recorded in the following volumes of the Secretariat Records, Public Department. Letters to Court of Directors Vol. 18 of 1771, Vol. 19 of 1772, Vol. 20 of 1773, Vol. 21 of 1774, Vol. 22 of 1775.

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but miscalculating the strength of the current, the boats were carried down the stream and the attempt had to be abandoned. In addition to this failure, a shell from the city, falling on the magazine, blew it up, destroying the greater part of the besiegers' munitions. A consultation was held and it was agreed that, on account of the lateness of the season, the attempt to reduce the town should be given up and the troops led back to Surat. As the management of the expedition had been in many points contrary to the instructions of the Bombay Government and had ended in so complete a failure, the conduct of the officers concerned was subjected to an inquiry by a committee. The result of the inquiry was that Mr. Draper, the chief of the factory men at Surat, was removed and the other members subjected to reprimand and censure.[1]

On the 30th July, 1771, the Bombay Government received a letter from the Nawab of Broach, offering to visit Bombay with a view to settling in person the claims brought against him. Mazad Khan's proposal was accepted, vessels were sent to Broach and, setting out at the close of the stormy season, the Nawab reached Bombay on 4th November, 1771. While in Bombey Mazad Khan was treated with every consideration. Before he left he had agreed to pay a sum of Rs. 4,00,000 of which Rs. 2,00,000 were to be forwarded in six months and the remainder at stated intervals, the whole payment to be completed within a term of two years. He also agreed to make over to the Bombey Government the duties collected on English trade and on all goods brought to or exported from Broach under English pass and colour. As the time for the payment of the first instalment drew near, Mr. Morley, the resident at Broach, was in April, 1772 directed to demand from the Nawab a distinct statement of his intention with regard to the treaty. In the event of the chief's refusing to explain his intentions, Mr. Morley was ordered to return to Bombay. The Nawab, either because he was unwilling or was in truth unable, refused to pay Rs. 2,00,000 in specie. He set about gathering ornaments of silver and gold, necklaces, earings, bracelets, pendants and what not. As the contents of his own treasure-house fell short of the stipulated amount of two lakhs which he had to hand over, he naturally turned to his subjects. In his words 'I imposed a tax on my subjects'. He forced them to contribute their jewels and heirlooms with the result that several chests of jewellery were tendered to the Company in lieu of two lakhs of rupees in specie. But the servants of the Company declined to have anything to do with jewels; they asked for cash. The Nawab desperately pleaded to the President at Bombay. Unfortunately the President was not pleased and Broach was attacked a second time. It might perhaps be argued that since the first expedition against Broach was unjustifiable in the opinion of the Court of Directors and they had ordered it to be given up, the agreement which was subsequently forced upon the Nawab from the same motives was equally unjustifiable. On this hypothesis the Nawab's

1. Mills' History of India, Vol. II.

failure or even refusal to pay merely amounted to a breach of promise made under the threat of dire retribution, so that the second expedition against Broach must be described as of the same kind of high handed opportunism as the first. But the servants of the Company at Bombay and Surat thought otherwise. They thought that the promise made by the Nawab at Bombay was a free act of his, unfettered by constraint and not visited by compulsion. Hence they considered themselves justified in vindicating their right by force.[1]

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Second Expedition 1772

A force was accordingly despatched from Bombay in the beginning of November 1772 and reached Broach before the middle of the month. The expedition was under the command of General Wedderburn, with Mr. Watson in charge of the marine department. On the morning of the 14th November General Wedderburn, when reconnoitering, was killed by a shell shot from the walls of the city. Colonel Cordon, also on service at Broach was appointed to succeed him. On the 18th November, 1772 the English forces stormed and captured Broach with a loss, including the brigadier-general, of five officers, sixteen sepoys, and twenty Europeans killed. Besides these, forty-four sepoys and seven Europeans were wounded, and forty-one sepoys were missing. A life of Mazad Khan by one of his courtiers gives the following local details of the capture of the city.—The enemy encamped to the north of the town near the tomb of Bawa Rahan. The bombardment began from the west. The Nawab's men met the besieging forces at the Jhampa gate and repulsed them to the Idga (1½ miles). The assailants then found a passage round to the river bank and made an attack from the flagstaff tower and the Katapori gate. A sharp fire from 6,000 muskets was kept up. General Wedderburn, mounted on his charger and standing in the open field of Sarah, received a bullet wound directed from the fortification and fell off his horse, dead. The attack was resumed from various positions and lasted for thirty-six hours. At last a traitor pointed out the weak point in the walls, the Kundi tower near the water. Through the Mecca gate the English forces first made an entrance. The Nawab, with three of his sons and a few followers, fled northwards. They sought shelter with Jalam, the Koli chief of Dewan, on the Mahi and here before long the Nawab died.

Mazad Khan left several sons and one of them, it would seem, found his way to England.[2] The court of directors, in a despatch dated May 1794, informed the Bombay Government of the arrival in England of a native of India named Mirza O-du-din Khan, styling himself a descendant of the late Nawab of Broach —

The Nawab's Disturbances.

"He has delivered," wrote the honourable court, "a representation to us in his own behalf, and in the behalf of five other descendants of the said Nawab, a copy of which is enclosed, and we direct

1. *Vide* Gaikwads of Baroda, Vol. II, Gense and Banaji, pages xi and xii.

2. Secretariat Records, Political Department, Vol. 23 of 1864, 238--242.

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that you cause inquiry to be made into their claim to a house at Surat and to a duty, said to have been vested in their family, on all goods imported there under the denomination of *wakenagang*, and that you use your endeavours to procure them such redress as the nature of the case may require. If you should be perfectly satisfied of the indentity of Mirza-O-du-din Khan, we have agreed that you shall make him an allowance of Rs. 200 per month so long as he shall conduct himself to your satisfaction. Should either of the other descendants of the Nawab of Broach make a similar application to you, we authorize you to grant them a like allowance, provided you shall be satisfied that they are really the descendants of the said Nawab. Mirza O-du-din Khan and his two attendants have, during their continuance in England, been subsisted at the company's expense and we have furnished them with a passage to Bombay in the ship Sir *Edward Hughes*."

The Bombay government, having satisfied themselves that O-du-din Khan was really a son of the late Nawab of Broach, and had three other brothers then living, assigned to each of them a pension of Rs. 200 a month. With reference to these pensions, it was subsequently ruled by the Honourable Mountstuart Elphinstone and confirmed by two successive governments, that the grant should continue for three generations, commencing with the last Nawab of Broach. In 1809 the court of directors specially assigned an additional yearly allowance of Rs. 4,600 to the surviving members of Nawab's family, in consideration of some ancestral property which, it was shown, had been sequestrated at the time of the acquisition of Broach. This allowance was, in its nature, hereditary, and by the orders of the Bombay Government, dated January 1812, the amount settled on each member descended according to the right of inheritance in the late Nawab's family. According to the pension list of the Bombay Presidency for 1874, a sum of Rs 1,506-11 As. was annually paid to fourteen discendants of the Nawab.

Settlement of Affairs, 1772.

On the news of the capture of Broach, Mr. James Morley was *appointed* resident, with Messrs. James Cheape and William Makon, joint factors, 'for the management of the concern, and for collecting the revenues of the town'. The chief factor at Surat was *ordered* to repair to Broach to settle matters upon a proper footing. The demands of the Mahrattas for a share in the revenue had, as noticed above, been refused by the first Nawab, but by about 1744, the Gaikwads by their incessant raids had acquired a considerable share in the Broach revenue. In 1751 there was an agreement of the partition of Gujarat between the Peshwa and the Gaikwad in which the latter kept the Mahratta share in Broach revenue to themselves. When the English in 1771 set about to conquer Broach, they apparently chose to ignore the Gaikwad's rights, hoping perhaps to face them later on with the accomplished fact of being the sole masters of Broach. It may also be that they had come to a secret understanding with the Gaikwads and had given them an assurance that their rights

would not be interfered with a similar agreement, be it noted, had been made in 1759 when the English gained possession of Surat. In any case if they had cherished any hopes of becoming the sole masters of Broach they had therein reckoned without their host. For shortly after the English conquest of Broach, Fatesing, the youngest son of Damaji Gaikwad, then nominally acting as representative of his eldest brother, approached the city with a body of troops. Fatesing would seem to have formed the design of gaining possession of the fort of Broach and making it his head-quarters in his contests with his brother Govindrav. With this object, he offered to pay the Bombay Government Rs. 6,00,000 and to transfer to the British a yearly sum of Rs. 60,000 from his share in the revenues of Surat. These terms were considered inadequate, and it was determined that Fatesing should in future receive the same share of the Broach revenues that the Nawab had been in the habit of paying him. In the course of these negotiations an attempt was made to make capital out of the rivalry between the Gaikwad and the Peshwa, but it was frustrated by Fatesing who succeeded in safeguarding his share in the Broach revenues. On the conclusion of these negotiations part of the troops returned to Bombay, leaving in Broach a garrison of 200 Europeans infantry, thirty artillery, and about 800 sepoys.

1772-1885

The arrangements with Fatesing were not altogether satisfactory. He contended that he had the right to collect a portion of the revenue and share in the management of the Broach territory. This claim was disallowed by the Bombay Government and arrangements were made for the administration, by British officers, of the entire settlement. Broach was separated from Surat and the management of affairs entrusted to a council, who were placed in direct communication with the Government at Bombay. The first president was Mr. William Shaw. The agents of Fatesing ceased to press his claim to share in the management of Broach and on the 12th August, 1773 the Bombay Government were able to inform the court of directors that at Broach the company's share in the revenue was settled with credit and advantage and almost the whole amount Rs. 1,50,000 due for that year was recovered.

Disturbances, 1773.

Not long after this (1773, August 22nd) an attempt was made against Broach by a 'a Koli raja near Cambay', probably the Chief of Dewan, by whom on his flight from Broach, the Nawab had been entertained. To put down this rising a detachment of troops was sent from Broach and the Kolis retired. They again assembled to the number of several thousands and after a forced march, on the morning of the 24th September, made an attempt on the town of Broach, and actually raised twenty-five of their scaling-ladders against the walls. Timely news of their approach had been received and they suffered such a disastrous defeat that they retreated with precipitation. On the side of the English only one sepoy was killed. Not long after, a body of Sindhis (Siddis?) and Kolis, under the banner of the Nawab's illegitimate son, attacked one of the company's villages.

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But this outbreak also was easily suppressed, and on the 23rd November, 1773 the Broach committee reported to the Bombay Government that order was completely restored.

The territory acquired by the capture of the city of Broach in 1773 corresponded to the sub-divisions of Broach and Wagra as they existed in 1877. This 'settlement' as it was then called contained 162 villages and was estimated to yield a total yearly revenue of Rs 5,01,717. Of the whole amount, forty per cent went to the English, and sixty per cent to the Gaikwad. In the following year, under the terms of the treaty (1775, March 6th)1 concluded between the Government of Bombay and the Peshwa Raghunathrav (Raghoba), the honourable company, as security for the pay of the contingent supplied by them to Raghoba, received in pledge the districts of Amod, Hansot, and a part of Ankleshwar. At the same time the interest of the British in Broach was further strengthened by the permanent cession in their favour of the lands of Jambusar, by an assignment of Rs. 75,000 a year on the revenues of Ankleshwar, and by the promise of procuring the remission of the Gaikwad's claims on the revenues of Broach. Two years later (1775, June 10th), by the aid of the British troops, Raghoba's position in Gujarat was much improved. Under the terms of an agreement then made between Raghoba and Fatesing, Fatesing agreed, besides ceding to them the District of Koral, to give up in favour of the British all the Gaikwad's claims on the Broach revenues estimated to yield a yearly revenue of Rs. 2,13,000.2 At the same time Raghoba, in return for the aid he had received, made the cession of the lands of Hansot and Amod permanent, a grant estimated to be worth Rs. 2,77,000 a year and generally referred to in the papers of that time as the 'three-lakh' territory. In the next year (1776) the alliance with Raghoba was broken off and the treaty of Purandhar concluded with Nana Fadnavis, the head of the government of the young Peshwa of Poona. This change of policy was accompanied by the restoration on the part of the British of the cessions recently made by Fatesing Gaikwad. At the same time the title of the English to the territory of the 'three-lakhs', Amod and Hansot was 'by way of friendship' confirmed by the Peshwa, and a sum of Rs. 12,00,000 was promised to the English to meet their expenses in the war. It would seem from the diaries of that period that the government of Nana Fadnavis was not in a position to pay this amount and that in its place the Jambusar sub-division was allowed to remain under British management.

In 1780, when war with the Maharattas was again declared,3 Jambusar was still in the hands of the English; and when hostilities actually began, Mr. Robert Cambier and other members of the civil

1 Grant Duff . History of Marathas, (1863), II., 202.

2. Grant Duff History of Marathas (1863) II . 217.

3 Grant Duff History of Marathas (1863) II . 287, 288

service at Broach, taking advantage of the presence of General Goddard, raised some irregular troops, and driving out the guards stationed there by the Peshwa, took possession of Ankleswar, Hansot, Dehejbara, and Amod. The successes gained by General Goddard's forces soon after hostilities began (1780) induced Fatesing to come to terms. He agreed again to remit his claims on the revenues of Broach, ceding at the same time the lands of Sinor on the Narmada and certain villages in the Broach sub-division. But affairs at Broach remained in this position only for three years. In 1783[1] the treaty of Salbai was concluded and all the possessions acquired by the British in Broach, yielding a revenue of Rs. 15,87,079 were handed over to the Peshwa. An exception was made in the case of the sub-division and town of Broach. These possessions which in 1782 had yielded a revenue of Rs. 6,14,140 were made over to Mahadaji *Sindia* in testimony of the sense entertained of the conduct manifested by him to the British arms at Wadgaon (January 1779), and of his humane treatment and release of the English gentlemen who had been hostages.

For nineteen years these territories remained under Mahratta rule. The portions first restored to British were the Peshwas share, the districts of Hansot and Ankleshwar, south of the Narmada. The cession of these lands, together valued at Rs 1,63,000, formed part of the agreement by which under the terms of the treaty of Bassein (1802, December 31st), the Peshwa Bajirav II obtained the help of the British Government in his contest with Sindia Holkar and the Raja of Berar, the confederate Mahratta nobles.[2] Operations against *Sindia's* possessions in Gujarat formed a part of the great preparations made by the British in consequence of this treaty of Bassein. On the 29th August, 1803, a European regiment, with a proportion of artillery and sepoys commanded by Lieutenant-Colonel Woodington marched from Baroda.[3] On the 23rd of the month they encamped within two miles of Broach. Though the next day when the English advanced upon the place, the opponents were seen posted as for resistance in front of the suburbs of the town, they were soon compelled to retreat within the fort. Next morning Colonel Woodington took possession of the suburbs. On the 29th, a breach in the fort was declared practicable. The storming party was led by Captain Richardson and though for a time the opponents resisted with considerable spirit, the fort was taken with slight loss to the assailants. By this victory the lands included in the Broach and Dagra sub-divisions, including 162 villages and yielding Rs. 10,54,540 of revenue, came under British management.

1. Grant Duff. History of the Marathas (1863), II., 324, 325. Honourable Mr. J. Duncan's Summary of Broach History — Rev Dept Diaries, 40 and 45 (1805).

2. In the account of the treaty of Bassein, Aitchison's Treaties, Vol III., 72, the total yearly value of these cessions is entered at Rs. 83,000. Of this amount, Hansot (Hansoid) is estimated to yield Rs 5,000 and Ankleshwar (Oclisier) Rs 78,000.

3. Mills' History, VI., Chap. 12.

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As before, the possession of the town of Broach carried with it the right to levy tributes from the petty chiefs of Dehej and Amod. Ankleshwar and Hansot, after their cession by the Peshwa in 1802, at first administered from Surat, were in 1805 made a part of the Broach district. No further territorial changes took place till in 1817, under the terms of the treaty of Poona, Jambusar, Amod, and Dehej were added to Broach. During all these years the Gaikwads were not in a position to raise the question of their old claim in the share of the revenues of Broach which was being frequently transferred from one to the other by the Poona Durbar. For a time they seemed to have acquiesced in the arrangement. But later on they made it an excuse for leaving unpaid equivalent arrears due by them to the Peshwa. It was to settle these and other accounts that Gangadhar Shastri Patwardhan had been sent by the Gaikwad to Poona in 1812. Before the negotiations could come to an end the Shastri was murdered at Pandharpur.

Koli rising 1823.

Since 1817 no additions were made to the British territory in the neighbourhood of Broach, and on no occasion did those lands become a seat of war under the British rule. Thrice only has the peace of the district been disturbed in 1823 by a Koli rising, in 1857 by a disorderly contest between the Parsis and Musalmans, and in 1885 by the rising of Talavias, an aboriginal tribe, inhabiting the area in the vicinity of Broach. In 1823 a body of Kolis, assembling in the Mahi Kantha from two or three hundred strong planned an attack on the town of Broach. About the same time another band of forty to fifty men plundered the village of Utali, in the Broach sub-division, killing the headman of one village and wounding one of the watchmen. The peasantry made no resistance and so paralysed were they with fear that they refused to say by whom the outrages were committed. "Landholders" writes the magistrate (1823, April 28th), "are deserting their fields, and cultivating patches in other villages". So much land was left untilled that there was a considerable falling off in revenue.[1] Of the Koli plunderers, two of the chief offenders were seized. On their way to the Broach jail, the escort was attacked by a band of men about a hundred strong, and one of the prisoners carried off. The other, Wali Khan by name, was secured and confined in Broach. To effect his rescue, bands of Kolis assembled near the town, and threatened to attack the jail and set fire to the powder magazine. The arrival of troops from Surat intimidated the marauders, and during the rains the country gradually quieted down.

Musalman riot. 1857.

The second disturbance was in 1857. Happening at the time of the mutinies in Bengal, and among the Musalman Bohora population so turbulent in those days, this riot was the cause of grave anxiety to the government of Bombay. But whatever hopes some of the actors in the outbreak may have had as to the ultimate form affairs

1. Magistrate of district, to Government. 28th April, 1823.

might take, the inquiries made at the time showed that, in origin at least, it was a local quarrel between the Parsis and Musalmans, and at no time assumed the form of hostility to the British government. The following particulars of this disturbance are compiled from records in the office of the Collector of Broach. In the beginning of May, 1857, the Muhammadans of the city of Broach were enraged against the Parsi population on account of certain insults offered to the religion of Islam by one Bezanji Seriadji, a Parsi, well known in Broach as a man of bad character. A charge of assault was brought against Bezanji, and a conviction followed. But the Musalmans, considering the punishment insufficient, determined to inflict summary retribution upon the offending Parsi. An attack by the town Muhammadans upon the Parsi quarter would seem to have been planned; and, to stir up the cultivating Bohoras to join, the report was circulated that, in addition to certain indignities offered to the Musalman religion the Parsi had defiled a mosque. Rumours of meetings among the villagers to the north of Broach were current for some days, and on the 15th May distinct information was brought to the district magistrate that about two hundred Bohoras had collected at the Bawa Rahan, a Musalman shrine about a mile to the north of the city of Broach. Leaving the police drawn up near the city, the district magistrate and superintendent of police rode out to the shrine, and attempted to persuade the body of men gathered there to disperse. But the mob refused to disperse, and in a body followed the officers as they returned towards the city. About the same time another band of Muhammadans entered the Parsi quarter from behind, and the riot was already begun. The Parsis made no attempt to defend themselves, but, wherever they could, closed their houses and took refuge inside. The police, many of whom were probably Musalmans, failed to stop the progress of the riot, and not till the arrival of a detachment of troops was order restored. Meanwhile the rioters had gained their object. Bezanji, the offending Parsi, had been beaten to death, and his body, dragged through several of the lanes, was on the approach of the military, left to lie in one of the chief thoroughfares. Another outrage — not, it would seem, part of the rioters' original plan — had also been committed. Some, among the Muhammadans, forcing their way into the fire-temples, had, at the altar, killed the Parsi high-priest. Twenty prisoners were lodged in the jail; but on account of rumoured risings in different parts of the country, no inquiries were made into their guilt. The military force in Broach was strengthened by the arrival of troops from Baroda, and the out-posts of the Gujarat irregular horse from Wagra, Hansot, Ankleswar and Amod. On the 13th of June, Mr. Rogers, of the civil service, was transferred from Surat, and placed in charge of Broach, with instructions to examine, without delay, into the circumstances of the riot. The result of the inquiries was to implicate the Molvi's son, 'a gloomy, weak-minded man, who would seem to have used his influence to stir up the Bohora, inhabitants of the villages round Broach'. This action of the Molvi's son was not, however, in Mr. Rogers' opinion, the result of any political ill-feeling towards

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1772-1885.

the British government, but came from a wish to have the insult on his religion avenged. On the 12th of July, seventeen of the men implicated in the riot were committed for trial at the sessions. On 23rd of August, five of them were convicted of having taken a share in the murder of the Parsi priest. Of these, two were afterwards hanged, and several other prisoners sent off to Bombay. No attempt was made either by Musalmans or Parsis to renew the disturbances. The whole riot had, in Mr. Rogers' opinion, no connection with the general rising in Upper India. At the same time it would seem that advantage was, to some extent, taken of the local disturbances and emissaries sent by the chief organisers of the rising, in the hope of stirring up the Musalman population of the district to revolt against the government. About the middle of August information was given by the chief of Rajpipla that a certain Syed Morad Ali was trying to organize a disturbance in Nandod, the chief town of the Rajpipla territory. The chief asked for help, as he believed the head of his troops had been tampered with by the Syed and that the men of militia were inclined to join his mercenaries in the revolt. On the 17th of August, Mr. Rogers, taking with him two hundred Indian and fifty European troops, started for Nandod. But the Syed had taken alarm and fled. The anxiety of the Europeans at Broach, kept alive by constant rumours of attacks from Rajpipla Bhils and Mahi Kantha Kolis was increased by signs of disaffection among the men of the native regiment stationed in the town. A close watch was kept upon the suspected characters; and as by the middle of September government were able to send a company of Europeans to Broach, any risk of mutiny was averted. By the beginning of December affairs were again so settled that the guard of Europeans was withdrawn. No disturbance of any kind followed their removal.

The third serious disturbance was created by certain Talavias, a low class of aborigines, kindred to the Bhils. Government had made several efforts to induce the Talavias to become peaceful cultivators in the Panch Mahals, where there was much waste land, and with that object had incurred much expenditure, but owing to their want of thrift, all efforts failed. In the monsoon of 1885 a number of these Talavias came to Broach under the leadership of two Bhagats of their own caste, who induced them to believe that their Mata (goddess) had promised them a kingdom. At first they were treated with contempt, and so little notice appears to have been taken of them that the headman was enabled to send circulars to people living in the district to gather round his banner at Broach on the day of the full moon, the 22nd of November, 1885. About one hundred Talavias arrived, armed, some with bows and arrows, and others with swords or sticks. They went first to the Collector's bungalow, which was not far from the place where the Bhagat had put up under a tree near the Id-gah. Learning from the peons that the Collector, Mr. William Allen, was not at home, the mob left the bungalow for the town. On the road they happened to meet Mr. W. B. Prescott, Superintendent B.B. & C.I. Railway Police, who was driving in his tonga. That

gentleman was, of course, quite unarmed and unprepared for any hostile encounter. On shouting to the crowd to make room for his carriage, they fell upon the unfortunate officer, and beat him so severely that he soon became unconscious, and died within three hours. Thinking him already dead, the mob left for the town, and on their way took from the first Police Chowki on the road the swords of the policemen, who also were off their guard. They then marched on the Bombay Bank in the town, but were there opposed by the sentries. These sentries discharged against them only unloaded muskets, whereupon the Talavias exclaimed that their goddess had melted the bullets, so that nothing but smoke should come out from the guns. Finding that they could not enter the Bank, the Talavias marched through the town. Outside the town however, they were overtaken by the Hazur Deputy Collector and Magistrate Mr. Bamnaji Edaji Modi and the Police Inspector the late Mr. Krishna Rao Gajanan, who, with a few men hastily picked up from the Police lines, had set off in pursuit. Near a culvert a slight engagement took place, in which four policemen were wounded, one of them fatally. Mr. Modi is also said to have had a narrow escape from the arrows freely discharged by the Talavias. The Police then fired on them, killing five and wounding the same number. After the second volley, the Talavias fled, and in the immediate pursuit forty of them were captured, while many others, including Lakha Bhagat, were subsequently arrested.[1] They were of course proceeded against. Lakha, as well as two of his principal adherents, were hanged at the scene of crime. Fifty-one were sentenced by the Sessions Judge to transportation for life, but the High Court remitted the sentences of seventeen of these. One of the ring-leaders, styled the Mata, who had escaped, was afterwards, captured and placed on his trial, but owing to his identity not being satisfactorily proved, this so called Mata was discharged.[2]

LATER PERIOD

During the course of the last century, the district of Broach, in common with other districts of the State has made considerable progress in several directions. The first Gujarati School under Government management was started as early as 1826, a similar English School followed in 1919. Shri Ranchoddas Girdharbhai Mehta did a good deal of pioneering work in this field. In 1885 was started the Narmada Veda Shala for the study of Sanskrit. In the nature of things, English education spread very rapidly, a large number of high schools being established all over the district. As late as in 1955 an Arts and Science college, known as Shri Jayandrapuri Arts and Science College, was started in the city of Broach. The Municipality of Broach was established in 1852.

1. That day was the day of the Suklatirth fair, and, had the progress of the rioters not been arrested, they would in all probability have committed havoc among the pilgrims, and done very serious mischief.

2. History of Gujarat by Edalji Dosabhai pp. 299-301.

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Administrative History.

BRITISH PERIOD 1772-1885.

Although Broach lost much of its ancient importance as a port on account of the increasing importance of Surat and Bombay under the East India Company it still continues to be a cotton export centre and a town of considerable commercial importance. In 1854 the East India Company started the first ginning factory at Broach which was however closed soon after. but local businessmen took the lead in starting ginning factories as also textile mills. The business of exporting bales of cotton is vigorously carried on in Broach even to-day. In 1862 the railway line was extended from Surat to Baroda, passing through Broach with a bridge over the Narmada. That gave an impetus to trade.

In political life few young leaders of Broach were to some extent influenced in the beginning of this century by the revolutionary thought of Aravinda Ghosh who was about that time in the service of the neighbouring Baroda State and who soon emerged as one of the most prominent leaders of Indian nationalism. Later on, with the advent of Mahatma Gandhi, the whole district fell under his influence and large number of its people actively participated in the movements started by him

PART III

CHAPTER 3 — THE PEOPLE AND THEIR CULTURE

CHAPTER 3.

People and Culture.

THE PEOPLE. **Details of 1951 Census.**

THE POPULATION OF BROACH DISTRICT, including the newly merged areas, according to the Census of 1951 is 706,035 (*m.* 363,145; *f.* 342,890). Spread over its area of 2934.2 sq. miles, it works out at 240.7 to the square mile. Of these 577,030 (*m.* 396,360; *f.* 280,670) or 81.7 per cent is spread over the rural areas, and the remaining 129,005 (*m.* 66,785; *f.* 62,220) or 18.3 per cent, over the urban areas.

LIVELIHOOD PATTERN.

This population is split up by the Census into eight livelihood classes. Of these the four Agricultural Classes make up a total of 71.2 per cent and include: Class I Cultivators of owned land 35.9 per cent; Class II — Cultivators of unowned land 12.7 per cent; Class III — Cultivating labourers 23.3 per cent; and Class IV — Non-cultivating owners of land 2.1 per cent. The four Non-Agricultural classes total 28.71 per cent and include Class V — Production other than cultivation 7.3 per cent; Class VI — Commerce 5.3 per cent; Class VII — Transport 1.01 per cent; and Class VIII — Other Services and miscellaneous sources 15.1 per cent.

COMMUNITIES.

The community-wise enumeration of the population given by the Census reveals that in the district Hindus (including Scheduled Castes and Scheduled Tribes) number 580,931 (*m.* 298,888; *f.* 282,043) or 82.28 per cent, Sikhs 148 (*m.* 76; *f.* 72); Jains 4,105 (*m.* 2,142; *f.* 1,963) or 0.58 per cent; Zoroastrians 1,662 (*m.* 762; *f.* 900) or 0.23 per cent; Muslims 114,025 (*m.* 58,194; *f.* 55,831) or 16.1 per cent; Christians 5,094 (*m.* 2,746; *f.* 2,348) or 0.72 per cent; and Non-tribals 68 (*m.* 36, *f.* 32). The rest are a Buddhist and a Jews. While the categories mentioned above make up the whole total of the population the Census has also enumerated 38,341 (*m.* 19,010; *f.* 19,331) or 5.2 per cent belonging to Scheduled Castes and 263,235 (*m.* 135,729; *f.* 127,506) or 37.3 per cent as belonging to Scheduled Tribes, and 642 (*m.* 364; *f.* 278) as displaced persons from West Pakistan.

Obviously enough, Hindus (and Jains) form the major part of the population and next come Muslims. In the following pages are described some of the customs and cultural traits of the two communities. The Backward classes including the Scheduled Castes and Scheduled Tribes have been dealt with in a separate section.

Of the eight tables of population statistics printed below—

The first indicates the variation in area, houses and population over the long period from 1881 to 1951.

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The second table shows the changes in the composition of the population, for the years 1911 and 1951, in regard to age and marriage. The figures available for 1951 are for a sample population only.

The third gives for the years 1911, 1931 and 1951, the distribution of population according to language.

The fourth exhibits the distribution of population by religion during the various Census years.

The fifth and the sixth give "area, houses and inmates" for urban and rural areas in 1951.

The seventh gives the birth and death ratio per 1,000 of estimated population for the years 1945 to 1951.

The eighth details the distribution of Livelihood Classes and Sub-Classes in the district for 1951.

TABLE I

Area, Houses and Population from 1881 to 1951, District Broach

Census Years.	Area in Square Miles	Towns.	Villages.	Occupied Houses		Population			
				Urban	Rural	Urban		Rural	
						Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10
1881	1,453	4	401	13,588	58,647	33,284	30,833	135,198	127,615
1891	1,463	5	400	15,165	60,898	37,136	35,238	137,828	131,288
1901	1,467	5	405	14,877	54,453	36,780	34,822	111,748	108,413
1911	1,468	3	406	15,441	56,886	33,270	30,468	124,976	118,003
1921	1,468	4	400	16,112	55,207	36,949	33,147	221,639	116,010
1931	1,468	5	403	16,864	67,943	36,999	31,881	137,895	127,395
1941*	3,198	10	1,022	46,260	149,438	89,555	82,134	388,666	364,172
1951†	2,934.2	7	1,180	18,921	100,058	66,785	62,220	296,360	280,670

*1941 figures are for Broach and Panch Mahals.

†1951 figures are for the newly formed Broach District after the merging of the Rajapipla State and other villages.

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TABLE II

Civil condition by age periods, District Broach, 1901

(All Communities)

Age Periods.	Total Population		Married		Unmarried		Widowed	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1	2	3	4	5	6	7	8	9
0-5	11,548	12,034	184	246	11,357	11,787	7	21
5-10	19,186	18,949	844	1,930	18,266	16,880	76	139
10-15	20,143	17,028	3,473	6,855	16,360	9,665	310	508
15-20	13,798	11,889	5,501	9,172	7,817	2,002	480	715
20-40	55,994	53,148	41,679	42,973	8,385	670	5,930	9,505
40-60	24,066	24,966	17,753	9,702	1,162	122	5,151	15,142
60 and over.	3,756	5,122	2,014	504	182	9	1,560	4,609
Unspecified	37	79	21	23	14	34	2	22
Total	148,528	143,235	71,469	71,405	63,543	41,169	13,516	30,661

TABLE II (*contd*)
1951 (Sample Population)

Age Period. 1	Total Population Male. 2	Female. 3	Married Male. 4	Female. 5	Unmarried Male. 6	Female. 7	Widowed or Divorced Male. 8	Female. 9
-0	1,243	1,177						
1-4	33,559	3,516						
5-14	10,000	9,222	78	262	9,921	8,958	1	2
15-24	6,323	6,169	2,441	4,848	3,803	1,215	79	106
25-34	5,600	5,380	4,757	5,087	626	41	217	252
35-44	4,462	3,750	3,980	3,169	174	29	308	552
45-54	2,906	2,470	2,434	1,542	74	8	398	920
55-64	1,655	1,498	1,167	509	55	4	433	985
65-74	593	634	382	119	11	4	200	511
75-over	196	175	79	13	7	1	110	161
Age not stated	2	7				2	2	2
Total	36,539	33,998	15,318	15,552	19,473	14,955	1,748	3,491

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TABLE III

Language (Mother-tongue). District Broach.

Language.	1951		1931		1911	
	Males.	Females.	Males.	Females.	Males.	Females.
Gujarati	346,087	327,242	151,158	138,279	143,846	136,181
Bhil Dialects; Bhili.	—	—	1,401	1,820	3,358	3,183
Urdu	13,671	13,612	—	—	—	—
Marathi	1,732	1,172	823	548	1,008	592
Western Hindi	—	—	20,689	18,373		
Hindi	823	354				
Sindhi	327	256	200	4	313	66
Rajasthani	198	93	285	167	284	172
Kacchi	61	41	158	40		
Punjabi	55	27	29	12	13	—
Kannada	38	19			8	6
Tamil	34	17	1	2		
Hindustani	25	21			9,290	8,234
Portuguese	23	12			19	4
Telugu	28	2	5	1		
Konkani	6	9	3			
Arabic	10	3				
Persian	—	—	14	—	3	—
Pusto	9	2	59	7	32	4
Burmese	4	4				
Bengali	4	3	1	—		
Malayalum	7	—				
Bulochi	5	—	125	—	7	—
Sanskrit	2	—				
Naipali	—	1				
Turkish	1	—				
Other Asiatic languages.	—	—	1	1	15	—
Other Indian languages.	—	—	—	—	17	4
English	—	—	22	6	32	25
Other European languages.	—	—	12	4	1	—

TABLE IV

Population by Religion from 1891 to 1951—District Broach

Religions	1891 Males	1891 Females	1901 Males	1901 Females	1911 Males	1911 Females	1921 Males	1921 Females	1931 Males	1931 Females	1941* Males	1941* Females	1951 Males	1951 Females
Hindus ...	126,197	119,197	99,960	95,962	100,050	92,914	117,003	110,217	128,458	116,596	233,261	211,033	298,888	282,043
Muslims ...	36,178	35,085	32,142	31,266	34,869	32,883	36,085	33,9 3	41,971	38,531	74,224	69,606	58,494	55,531
Christians ...	90	38	428	291	725	377	1,426	1,192	1,568	1,358	4,008	3,634	2,746	2,348
Jains ..	1,878	1,698	1,707	1,547	1,645	1,404	1,758	1,[illegible]97	1,538	1,284	2,717	2 450	2,142	1,963
Zoroastrians ..	1,526	1,747	1,450	1,677	1,229	1,541	1,045	1,176	950	1,140	...	...	762	900
Sikhs	..	...	12	11	..	...	2	3	...	...	102	54	76	72
Buddhists ...	...	...	...	...	..	...	4	...	...	...	...	..	1	...
Jews... ..	13	10	8	8	14	3	2	2	...	...	...	...	...	1
Tribals ...	9,054	8,751	12,821	12,473	19,623	19,237	1,263	1,169	408	365	135,986	132,631	...	...
Others	..	.	..	...	96	100	...	...	...	..	1,187	1,321	36	32

*The figures are for Broach and Panch Mahals.

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TABLE V

Housing—Urban and Rural, District Broach, 1951

Urban

S. No.	Name of village or town/ward.	Area of village or town in square miles.	No. of houses.	No. of house holds.	Total No. of persons enumerated (including inmates of institutions and houseless persons.)			No. of inmates of institutions and houseless persons.	
					Persons.	Males.	Females.	Males	Females.
1	2	3	4	5	6	7	8	9	10
1.	Amod	6.1	1,351	1,586	7,833	4,129	3,704	603	26
2	Ankleshwar	1.2	3,028	3,470	15,275	7,878	7,397	58	19
3.	Broach	5 3	7,284	13,486	62,729	32,574	30,155	415	183
4.	Hansot	6.2	1,060	1,257	6,078	3,086	2,992	88	23
5	Jambusar	1.8	2,044	2,447	14,244	7,386	6,258	14	4
6.	Kavi	12.9	443	1,070	5,426	2,743	2,683	...	...
7.	Rajpipla	1.3	3,711	3,887	17,420	8,989	8,431	101	43

TABLE VI

Rural

S. No.	Name of village or town/ward.	Area of village or town in square miles.	No. of houses.	No. of house holds.	Total No. of persons enumerated (including inmates of institutions and houseless persons)			No. of inmates of institutions and houseless persons.	
					Persons.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10
1.	Amod	165.0	7,298	7,922	37,151	19,274	17,877	269	216
2.	Ankleshwar	155.1	8,504	9,656	47,674	24,216	23,458	201	101
3.	Broach	246.1	15,520	17,417	87,949	44,847	43,102	670	399
4.	Dediapada	379.2	4,158	4,759	30,051	15,647	14,404	61	10
5.	Hansot	145.5	4,807	5,410	25,872	13,035	12,837	77	41
6.	Jambusar	351.6	13,924	15,269	72,650	37,446	35,204	215	155
7.	Jhagadia	292.8	13,755	15,168	81,201	41,794	39,407	205	131
8.	Nandod	428.0	14,150	14,816	82,750	42,694	40,056	153	44
9.	Sagbara	121.1	2,421	2,742	16,884	8,597	8,287	44	20
10.	Vagra	308.0	7,696	9,186	44,717	23,130	21,587	1,487	1,173
11.	Valia	188.7	7,825	8,647	50,131	25,680	24,441	494	456

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TABLE VII

BROACH

Year.	*Birth Ratio per 1,000 of Estimated Population.* Male.	Female.	Total.	*Death (all causes) per 1,000 of Estimated Population.* Male.	Female.	Total.
1945	19.17	18.08	37.25	31.37	32.93	31.99
1950	17.77	16.60	34.37	21.59	21.22	22.11
1951	22.67	21.39	44.06	18.47	18.02	18.25
1952	20.59	19.30	39.89	20.13	20.35	20.64
1953	19. 8	18. 5	38. 3	19. 1	18. 7	18. 9
1954	23. 6	22. 2	45. 8	16. 9	16. 9	16. 9

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TABLE VIII

Livelihood Classes and Sub-Classes, Broach District 1951

Occupation.		(i) Primary means of livelihood.			(ii) Secondary means of livelihood.		
		Rural areas.	Urban areas	Total.	Rural areas.	Urban areas.	Total.
Agricultural Classes.							
i. Owner Cultivators and dependents.	M.	125,887	3,490	129,377	4,489	256	4,745
	F.	120,860	3,499	124,359	3,221	106	3,327
ii. Tenant Cultivators and dependents.	M.	44,652	1,763	46,415	5,065	328	5,393
	F.	41,976	1,621	43,597	2,106	54	2,160
iii. Agricultural labourers and dependents	M.	72,244	1,534	73,778	32,220	288	32,508
	F.	69,339	1,427	70,766	63,630	391	64,021
iv. Landlords and dependents.	M.	5,225	1,659	6,884	1,357	1,037	2,394
	F.	6,109	1,743	7,852	232	104	336
Non-Agricultural Classes.							
v. Production (other than cultivation).	M.	11,850	15,759	27,609	7,887	1,154	9,041
	F.	9,935	14,162	24,097	1,484	649	2,133
vi. Commerce	M.	5,625	14,064	19,689	2,110	1,277	3,387
	F.	4,727	12,979	17,706	381	212	593
vii. Transport	M.	1,021	2,973	3,994	257	122	379
	F.	979	2,165	3,138	13	12	25
viii. Other services and miscellaneous sources.	M.	29,856	25,543	55,399	8,001	2,019	10,020
	F.	26,751	24,624	51,375	8,302	2,452	10,754

CHAPTER 3.

People and Culture.

HOUSES AND HOUSING.

People of almost all classes consider it a point of honour to have a house of their own. The types of houses built in the district vary with the locality and the stage of development and culture of the community to which the inhabitant belongs. For purposes of description the dwellings in Broach district can best be treated according to their location, viz., (1) towns, in (2) villages in plain areas, and in (3) villages in forest areas.

Towns.

(1) Town houses of the better class are generally built on a plinth raised from two to four feet above the street level. This plinth is reached by two or three steps almost always set parallel to the line of the street. The steps are generally of stone or cement and brick masonry and cement plaster. Along the outer edge of the plinth and of the same material as of the steps is kept an open *oṭalā* (terrace) according to the availability of space. In the early morning the people of the house sit on this terrace, clean their teeth and converse. They also may sit there in the afternoon or in the evening and at times late in the night. In some cases these *oṭlās* are covered by the projected balcony of the first storey. The main entrance door is of wooden plank studded with iron or brass fastenings and fixtures and is oil painted. The top of the houses are roofed either with Manglore tiles, country tiles or galvanized corrugated iron sheets. At times there is a small terrace in the beginning of the roof which beautifies the appearance by concealing the frontage of the roof.

Passing through the main entrance the house is found to consist of a front and rear portion separated by a small courtyard *cawk* open to sky. Where the length of the house is not beyond thirty feet the courtyard is noticed at the rear portion of the house. The first room to meet in a house on entering is called the *parasāḷ*. It is a drawing-room which is also at times used as a bedroom. The *parasāḷ* leads to the *cawk*, a small open court. The floor of this court is paved with stone or lined with cement and may be used as a bathing place. Except for a framework of iron bars thrown across overhead at the level of the upper floor this court is open to the sky. The passages on either side of the court are used as rooms, the water room *pāṇiyārū*, the cooking-room *rasoḍu*, being generally on the left and a washing place, a well from which water is drawn for bathing purpose and the chamber of household gods *mandir* being generally on the right.

In the water-room *pāṇiyārū* are kept large brass pots filled with water and a store of well burnished brass vessels is generally arranged on shelves near the large water pots. Beyond the *cawk* there may stand an open veranda meant for the use of women and in which is provided a swing-cot. Next to the veranda or behind the court and opposite the entrance there are generally one or two chambers, (*orḍās*) which are more or less dark and are used as storerooms for grain and firewood and sometimes as bedrooms for the women of

the house. Occassionally in the storerooms strong rooms are provided where family ornaments, cash and other valuables are kept for safe custody. Latrines and bathroom are located either on *oṭalās* in front of the house or at the back of the house as per convenience. Except in very few houses urinal rooms are not provided. *Cawkḍis* (small enclosures) in any of the rooms except the kitchen may be provided for urinals.

To get the upper floor there is generally in one corner of the entrance room or on the *oṭalā* a wooden stair-case with a rope hung to support in going up. The front room in the upper storey is a parlour which is a sort of a drawing room *diwāṇkhānu*. The floor is covered with carpet partially or fully and glass lamps popularly known as *handi* and *jhummar* or modern electric globes are hung in the ceiling, and there may be a row of cushions propped against the walls. This is also used as sleeping room and spring cots are at times provided. In case of well-to-do people a sofa set and rich furniture are provided; otherwise a few chairs, a tea-poy and a table would be there. In some cases a swing-cot or bed will be found, for the head of the family generally sleeps in this room at night. The walls are either white or colour washed or oil painted and they are decorated by hanging photoes and pictures of gods and goddesses. The back rooms opposite the upper sitting room are used as bed rooms by the sons of the family. The family clothing and sometimes the jewels are stored in these rooms in strong boxes.

The houses are generally in chunam or cement masonry and chunam or cement plaster. The structure is of woodwork. The doors, windows and ceiling are of wood. Rich people who have recently constructed their houses during the last 25 years have used R.C.C. slabs for floorings otherwise all floorings are of wooden cuttings and planks covered either by cowdung and mud or by cement plaster or stone slabs. They are also covered by cement tiles occasionally. The poor class people in towns build their houses in mud masonry either with cement or chunam plaster or pointing. Their houses are either single storied or double storied with country tiled roofs.

The town has no drainage system and hence each house has its own covered pit either in the house premise or in front of the house for water disposal. These are more or less of the sort of soak pits. Where water supply is not provided well water is used for drinking, bathing and washing purposes. Even where there is water supply some use well water for drinking purposes.

In general the houses in good locality are decent and well ventilated. But the town having not been planned properly at the outset the lanes are neither straight nor sufficiently wide. Even main roads are at places very narrow. As compared to Broach town, Rajpipla town is to some extent well planned as it was the capital of the former State of Rajpipla. It has wide good roads, water supply, electric supply, parks and gardens, schools and hospitals, all kinds of

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HOUSES AND HOUSING.

Village houses.

amenities which a small town can aspire. The royal palace known as 'Wadia Palace', the Royal Guest House etc. are the places of attraction.

Villages in plain areas:

The streets popularly known as *falia* in a village are mostly in straight lines with branch roads in between two rows of houses. Houses are mostly adjacent to each other having side walls common between two houses. Houses have small plinth and at times no plinth over ground level. In front of every house there is open space where sheds are kept for buffaloes or cows and bullocks if the owner is a farmer.

Then begins *parasāḷ* which is an open veranda sufficiently wide to use even as sitting or drawing room where guests are received. Next to it is a room which is used as storeroom sufficiently wide even to be used as sitting room for females. Third room is a kitchen room. Occasionally some houses are found with a small *cawk* in between the second and third room. There is an open enclosure at the back which is known as *wāḍā* where miscellaneous articles are stored. In *wāḍā*, a bathroom is built or a small enclosure either covered or open to the sky for bath purposes is provided

The buildings are either double storied or single storied. In single-storied buildings there is no furniture kept except in a very few cases, where some chairs and a teapoy or a small table are put up. In double-storied houses more chairs and teapoys are kept in the first room of the upper floor. Flooring is generally of earth plastered with cow dung. Occasionally it is cement plaster or stone slabs and rarely it is of cement mosaic tiles. Carpets are also provided on floorings as per availability and occassions. The usual method of receiving guests is to offer them a cot with mattress for sitting.

The houses are constructed with mud masonry with either cement pointing or plaster and at times without that. Poor people construct their houses with only mud without bricks, and plaster the walls with cowdung from within and without. At times they put up crude types of pictures on these walls with chunam. Woodwork is used for structure and doors and windows. They are either oil painted or kept without painting. The roofs are of galvanized corrugated iron sheets, Manglore tiles or country tiles. Poor people have country tiled roofs over their houses.

In general, villages which have a number of rich people are decent looking with sanitary arrangements such as a village can aspire to have. Streets are lighted with kerosene lamps at night. They are properly swept by sweepers daily. Village wells and tanks are kept clean and common necessities like a school, a dispensary and a small library are provided. A resting place for outsiders is known as *dharmsālā* or *sarai*. The general appearance of streets (*falia*) and houses differ according to the type of locality and inhabitants. One

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acquainted with the type of occupation of the people can at once recognise the type of inhabitants residing in a particular locality from its appearance.

Forest houses.

Villages in forest areas are popularly known as *vās*. These are inhabited mostly by the *Ādivāsi* people. The houses are huts pure and simple. In case of some *vās* there may be one or two houses properly built as of the type of those in the villages located in the plains. These houses belong to either a landlord or a trader who depends for his rich living on poor *Ādivāsis'* toil. The huts are scattered and not adjoining one to the other. Of late these people have begun to understand the importance of cleanliness. The surroundings are being kept clean and tidy and the whole atmosphere and appearance of a *vās* have much improved.

The huts have a small *cawk* in front, at times open, otherwise closed by a hedge for keeping cattle if any. There are hardly two rooms inside the hut which are used according to need and convenience. Drawing-room, sleeping-room, store-room and kitchen all are located in these two rooms. There are crude cots. A bathing place is kept without any enclosure in the open *cawk*. A stone or a plank is kept for sitting while taking bath.

There is no furniture as such. All that is used for sitting is a crude wooden cot. The usual place for sitting is floor either smeared with cowdung or in its natural form.

Well water or river water, if available, is used for drinking, bathing and washing purposes. Generally people go to a pond or a river for bathing and washing purposes. The walls of huts are either of bamboo chips or of mud having no woodwork. The roof is covered by palm leaves or country tiles and their maintenance cost is inconsiderable.

Most of the land in this district being black cotton soil, special care is required to be taken in constructing houses and bungalows so as to prevent shrinking of walls resulting in damage to the whole structure. This seems to have been neglected so far as is evident from condition of some big, old, structures.

DRESS.

Fashions in dress derive considerably from the past, and the Gujarati dress-wear fifty years back of which the present dress-wear of Broach Hindus is a legacy consisted of the following items :

(1) *Pāghaḍī* (pre-formed turban), *pheṭo* or *sāpho* (freshly folded turban), (2) *badan* (waistcoat), (3) *aṅgarkho* (coat) and *jāmo* (long coat), (4) *pacheḍī or dupaṭṭo* (shoulder-cloth), (5) *dhotiyū* (waist-cloth), and *joḍā* (country-made shoes) were in the use of male, and (1) *sāḍī* or *sallo* (robe), (2) *coli* or *kāñcaḷi* (bodice), (3) *ghāgro* or *cānio* (petticoat) and (4) *oḍhani* (head scarf) in that of the female.

The *pāghaḍī* (turban) was made of fine cotton cloth with a fringe of gold brocade at each end, its length varying from twenty to fifty

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DRESS.

yards. The way one folded his *pāghaḍī* was a guide in many cases to the caste of the wearer. The Broach Vania turbans were of two kinds, a small tightly folded low cap-like turban known as *Mughalai* turban worn by government servants, and the larger looser and higher north Gujarat turban worn by traders. The *jāmo* a long coat, which in the past formed part of the dress of men in respectable position, was, except on wedding occasions, almost entirely confined to the use of a few elderly Vānias. The *pacheḍī* or *dupaṭṭo*, a light muslin cloth, about three yards long by a yard broad, was worn either as a scarf round the shoulders or as a sash round the waist.

The style of dress has changed considerably in the last two decades. The villager in Broach still uses the *dhotiyū*, but the head-wear is changed. The *phenṭo* is now replaced by the white cap and the *pāghaḍī* has practically disappeared. The *badans* and *bandis* which were his upper garments have also passed through fashion changes. The *angarkho* or *kedru* is rarely seen and the body is covered by the *sadro* and the jacket or half-coat as it is called. The villager under the influence of Kathiawad wears the stiff and thick trousers which accompanies the coat that has replaced the old many-laced *kediā*. The educated Indian under Western influence has taken in some places to the wear of the hat or sun-helmet as his head-gear. Except on festive and ceremonial occasions when he dons the turban, *pheto* or *sāpho*, he usually wears a folding cap or goes bareheaded. The urban youth often goes bareheaded, uses shirts, coats, often the *achkan*, and trousers, shorts, *lengho*, but seldom the *dhotiyā*. The Gandhi *sadro* and cap, the Nehru shirt, *Jodhapuri* coat and *chudidar pyjamas*, bush-coat and bush-shirt are the more recent innovations in the male dress ensemble.

The women use *colis*, blouses, polkas, with or without brassiere (undergarment), and petticoats and *sadis* with or without underwear, which have practically replaced the long heavy *sallas* of old.

The girls go bareheaded and wear petticoats and blouses but they do not use *odhanis* generally. The *champal* has become the favourite footwear for all.

It is no more a fashion for males to use ornaments, the privilege being left for the fair sex to exercise. However, we find among the Vanias, a community fond of ornaments, if fairly well off a man's everyday ornaments are *kandoro*, a silver girdle, and a *kadū* (gold armlet) worn above the elbow, if he is rich he wears besides these a pearl *buṭṭi* (earring), a gold or pearl *kanṭhi* (necklace), and *vinṭi* (finger rings); if he is very rich he adds *kallās* (wristlets) of solid gold.

The items of ornaments in the female wear are many. On festive occasions, women adorn their necks with gold necklaces and jewelled ornaments, and they also wear rich strings of pearls, bracelets, nose-rings, armlets, and jewelled ornaments set to resemble flowers. There has been a great change in the last fifty years in

the shape of ornaments worn by women. New designs have been produced, and ornaments are now more valuable and more artistic than before.

ORNAMENTS.

Apart from the modern brooches of fancy shapes used in the hair, the traditional gold-plated hair ornament, worn by women is called *cāk*. Their ears are adorned with *buṭṭī* in the ear-lobe of real or imitation pearls or of diamonds according to the wealth of the their necks they wear *hānsḍis, ḍāṇiās, kaliganthis, kanṭhis, ṭusis,* family and other ornaments such as *lolias, jhāls,* and *tholias.* On *candrahārs, jhālmars,* and *sānklias.* Coloured ivory bracelets called *guḍis* inlaid with gold and gold bracelets called *baṅgḍis* are worn on the wrist. Anklets of silver called *kaḍlās* or *bagaldāṇās,* chain anklets called *toḍās* or *sāṅkḷās,* and silver rings on the toes are their feet ornaments.

Children's feet are loaded with gold and silver chains, *Kallās, sāṅkḷās, hānsḍis, bagaldāṇās, jhanjhars, polarias, langariās,* and *vālias.* Around their waist are fastened gold and silver belts, *kanḍoras,* while their arms are set-off by gold bracelets, *darshāṇās* and *pāṭhs.*

FOOD.

The dietary of the Broach Hindus varies to some extent according to the different caste groups among them, the distinction being made mainly on the ground of certain food taboos and preferences. The influence of Jainism has rendered most of the (Gujarāt) castes strictly vegetarian, and only a few of the so called higher castes, such as Rajaputs and Marāthās, and some of the so called lowest castes, such as Kolis, Dheds and Bhangis, eat the flesh of goats, sheep or fowls, and fish of all kinds Cows and peacocks are considered holy and their destruction is resented even by non-vegetarian Hindus. The Jains are not only strict vegetarians, but also avoid eating vegetables which are many-seeded such as brinjals, or bulbous and tuberous plants such as potatoes and yams. On certain days called *parva,* the use of green vegetables is forbidden to them. Except for such distinction made because of caste or religion, the general dishes and the way of their serving, which is peculiarly *Gujarāti* are common to all.

Hindus generally take two meals a day, the first between ten and twelve in the morning and the second between eight and ten in the evening. The Śrāvaks, who because of their religious precepts have to finish their evening meal before sunset, are an exception.

For the morning meal a well-to-do family generally has *bhāt* (boiled rice) of fine quality, *dāl* or *kaḍhī* (split pulse boiled and mixed with spices of various kinds), *phulkā* (cakes of wheat flour spread with *ghee*), one or two kinds of *sāk* (cooked vegetables), *kacumbar* (salad), pickles, chutneys, *athāṇās, murabbās* and other similar preparations to season the food, and curds or *chās* (butter-milk). At the evening meal there are *puris* (fried cakes of wheat flour) milk

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boiled and mixed with sugar, some vegetables, and pickles. No *chās* (butter-milk) is included in the evening meal as it is believed not to be wholesome. In the family of the trader or merchant in middling circumstances the morning meal consists of rice, *dāl* (split pulse), *roṭlā* (bread of unleavened dough) of *bājri* or *juvār* flour and vegetables of cheap quality. For the evening meal there is *roṭlā* (bread) and vegetables with milk at times. The diet of the poorer classes of artisans, town workmen and field labourers consists of *Juvār* or *bājri roṭlā* (bread) in the morning and *khicaḍī* (rice and spilt pulse cooked together) in the evening.

Except in households of a few urbanites who have taken to Western table manners, each dining person has a *pāṭlo* (a small low wooden stool) to sit upon and the meals are served in a *thāḷī* (a flat round metal dish) with two or three *vāṭkis* (small metal bowls) placed on a similar *pāṭlo*. A *loto* (water-jug) of silver or brass with a *pavālū* (drinking cup) set upon it stands on one side. Pottages and vegetables are served in the *vaṭkis* on the right hand side, the rice or wheat dish in the centre, and *kacumber, chutneys* etc., on the left of the *thālī*.

The Gujarāti culinary art expressed in their daily food, feast menus, and holiday dishes is quite extensive.

There are many types of *masālās* (spices) used in Gujarāti cookery but *leelā masālā* and *garam masālā* are the two main types. *Leelā masālā* is so called because in it all the fresh green ingredients like *ādū* (ginger), *kothmīr* (corriander leaves), green chillies and some times *lasaṇ* (garlic) are finely chopped, minced or ground together. In the other type, all dry ingredients like *dhaṇā* (corriander seeds) *sahajeera, tal,* dry cocoanut, *taj* or *dālcini* (cinnamon), dry chillies *badiyan,* cloves, *tamalpatra, haldar* (turmeric), cardamoms, *khuskhus* (poppy-seeds), *hing* (asafoetida), *dagadphul* etc., are first fried in little oil and then pounded together and so it is called *garam* (hot) *masālā*.

To render a dish more savoury and relishing it is processed with *vaghār*, a peculiar method of spicing. A little oil or *ghee* is heated and mustard or cummin seeds are put in it. After the seeds split in the hot oil, *hiṅg* is added, also a little turmeric and chilli powder, and the hot mixture is either poured on or mixed with the article to be processed with the *vaghār*. The spice contents of a *vaghār* varies with the type of dish and the regional taste.

Rice is cooked in different ways. The simplest variety is plain rice; then *khicaḍī*, which is rice and *dāl* mixed and *vaghār* and *masālā* added to it. For special occasions, *biryāni* or sweet rice is prepared, or *masālā-bhāt* or *pulāv* with vegetables in it.

Many varieties are prepared from pulses. *Naram dāl* is a liquid preparation of *tuvcr dāl* with *vaghār, garam masālā*, jaggery, tamarind juice and enough water put into the well-cooked *dāl*. *Chuṭī* or

lacako dāl is semi-liquid, well-cooked *dāl* of *tuwer* or *mug* with only little salt and turmeric added to it. *Osāmaṇ* is like clear soup; after cooking *tuwer dāl* in plenty of water, only the liquid is strained out and boiled with *vaghār, garam masālā,* curry-leaves, tamarind or *kokam* (wild mangosteen) juice and jaggery.

Sometimes, instead of *dāl, kaḍhī* is prepared out of butter-milk. A little gram-flour is mixed with buttermilk, for thickening and the mixture is boiled well with *vaghār* of *ghee*, cummin seeds, *hiṅg*, green chillies, curry-leaves, salt and sugar. Vegetables like lady's fingers, white pumpkin etc., may be put into the *kaḍhī.*

Kaṭhoḷ is a preparation made from different pulses like *vāṭāṇā, vāl, mug, aḍad,* etc. When the preparation is desired of thick consistency, the pulses are soaked overnight and then cooked. Sometimes the soaked pulses are fried in oil and it is called *taḷelā kaṭhoḷ.*

Roṭlī (bread) is made of wheat and prepared in different ways. *Phulkā* is rolled out very thin, baked on a hot-grid and then roasted on live coals. *Sātpadī* is prepared by rolling out dough in a round shape, folding and rolling it out seven times with a spread of rice-flour and *ghee* in between the folds. *Copḍā* is prepared in the same way but it is rolled out only twice. *Leci* or *bepaḍi* is a thin bread of two *paḍs* (layers) which are separated after the baking. For preparing a *paroṭhā,* the dough is rolled out, the spread applied, rolled, cut into pieces, again rolled out and fried. *Bhākhri* is made of wheat flour but the dough is very tough and the result is very crisp. *Puri* is prepared by rolling out the dough in small rounds and then fried in deep oil or *ghee.*

Pharsāṇ is a holiday dish, *sev, gāṇṭhiā, pāpḍi, cevaḍo* and *bhajias* being its usual varieties. *Muṭhiā* is made of gram flour and wheat-flour, *masālā* and chopped vegetables, shaped with *muthi* (fist) and then fried. *Pātrā* is prepared by spreading a thick paste of gram-flour with *masālā* in between a number of *alu* leaves, then rolled and steamed. Sometimes round slices from the steamed rolls are fried. *Kacor.* is a preparation with different vegetables or left over *sev-cevaḍā* being stuffed into a rolled-out pastry and fried. *Maṭhia* is crisp like *pāpaḍ* but made of *maṭh* flour. *Bhajiā* is a very common dish. Onions, potatoes or certain vegetables are cut into fine pieces, dipped into a batter of gram-flour and fried. *Idaḍā* is made of *aḍad* and rice, ground and soaked overnight and the latter put in small bowls and steamed. *Dhoklā* is sometimes made from a combination of gram-*dāl* and *aḍad* or lentil and rice. The pulses are soaked, ground, left overnight and then steamed and cut into squares. *Masālā ḍhokḷā* is prepared by adding *masālā* and tamarind juice and jaggery to it. *Puḍā* is a preparation resembling pancakes. Wheat or gram-flour or any pulse soaked and ground, is made into a thin paste, *masālā* is added and the *āṭho* (paste) is spread on a hot grid with a little oil or *ghee.*

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Then there are certain common dishes made from wheat. *Kansār* is prepared by cooking semolina or *ravo* (granuled wheat-flour) in boiling water and then adding sugar and *ghee* to it. *Lāpsi* is a semi-liquid preparation of wheat flour, milk and sugar, while *sirā* is prepared by first browning semolina in a little *ghee*, then cooking it either in milk or water until the liquid is totally absorbed and then adding sugar to it.

Lādu or sweet balls are made of semolina, *ghee* and sugar, or gram-flour and sugar, and offered for *nāstā* (break-fast) and not for dinner. *Magaj* or *hālvā* is made of *ghee*, sugar and grated white pumpkin (*dudhi*) or carrot.

Puranpoḷi or *vedmi* is prepared by stuffing cooked gram-*dāl*, sugar and cardamom into pastry and then rolled out and baked on a hot grid. Jaggery is also used instead of sugar. *Ghāri* is made of fine wheat-flour, sugar, and *ghee*. *Ghevar* is also made of the same ingredients but put in different shape and is considered a *miṣṭānna* (feast-dish). It requires great skill to prepare these dishes, and they are generally included in big marriage feasts. Dishes like *kansār*, *lāpsi*, *sirā* requiring less skill are prepared one on each day during the marriage festivity. The preparation of these dishes involves considerable expenditure and is more or less confined to the well-to-do classes of the community, though on rare occasions some of them are enjoyed even by the lowest sections.

CUSTOMS. Saṁskāras.

The Hindu customs regarding various religious ceremonies centre round the *saṁskāras* prescribed by their religious books. The *saṁskāras* (ritualistic ceremonies or purifying rites) prescribed by the *Dharmaśāstra* for Brāhmaṇas and other twice-born castes are sixteen in number. They are as follows:

(1) *Garbhādhāna* (foetus-laying) is the ceremony performed at the consummation of marriage

(2) *Puṁsavana* (male-making) is the sacrifice on the vitality in the foetus.

(3) *Anavalobhana* (longing-soothing) is the sacrifice performed in the third month of pregnancy.

(4) *Viṣṇubali* is the guardian-pleasing sacrifice performed in the seventh month of pregnancy.

(5) *Sīmantonnayana* (hair-parting) is the parting of the hair in sixth or eighth month of the first pregnancy.

(6) *Jātakarma* (birth-rite) is giving the infant clarified butter out of a golden spoon before dividing the navel string.

(7) *Nāmakaraṇa* (naming) is the ceremony of naming the child performed on the tenth, eleventh, twelfth or hundred and first day.

(8) *Niṣkramaṇa* (home-leaving) is carrying the child out to be presented to the moon on the third lunar day of the third bright fortnight after birth.

(9) *Sūryāvalokana* (sun-gazing) is carrying out the child in the third or fourth month to be presented to the sun.

(10) *Annaprāśana* (food-testing) is the ceremony of feeding the child with food performed between sixth or eight month after birth.

(11) *Cūḍākarma* (topknot rite) is the ceremony of tonsuring the hair of the child in the second, third or the fifth year.

(12) *Upanayana,* the ceremony of investing the boy with the sacred thread.

(13) *Mahānāmya* (great-name-telling) is the instruction in the *Gāyatri* after the *Upanayana.*

(14) *Samāvartana* (home-returning) is the return home of a boy after completion of his studies at his preceptors.

(15) *Vivāha,* marriage.

(16) *Svargārohaṇa* and*Antyeṣṭi,* obsequies.

Of these sixteen *saṃskāras* which were performed with Vedic rituals for the Brāhmaṇas and allied communities and with Puranic rituals for the rest of the Hindus only four *viz.*, *Sīmanta* or Pregnancy, *Upanayana* or Thread-girding, *Vivāha* or Marriage and *Svargārohana* or Heaven-climbing are observed at present by the Hindus. In Gujarāt *garbhādhāna* is not observed, but *sīmanta* is performed with great solemnity.

It is to be noted that in modern times most of the *saṁskāras* (except *garbhādhāna, upanayana* and *vivāha)* have fallen into oblivion and are hardly ever performed even by Brāhmaṇas in the manner and at the times prescribed by the *smṛtis.* Owing to the rapid rise in the marriageable age of Brāhmaṇa girls, even the *saṁskāra* of *garbhādhāna* is falling into abeyance. *Nāmakaraṇa, annaprāśana* are performed in a popular way but without Vedic *mantras* or without calling a priest to officiate. In most cases *cūḍākarma* is performed on the day of *upanayana,* the ceremonies of *mahānāmya* and *samāvartana* following immediately after on the same day. To atone for the *saṁskāra* that is not performed the officiating priest may insist upon a penance called *kricchra.*

Guard-binding.

Sīmanta (hair-dividing), more commonly called *kholobharvo* that is lap-filling, is preceded by a minor ceremony called *rākhadi* (guarding). This guarding, which corresponds with the *Viṣṇubali* (the fourth vedic *saṁsakāra),* takes place on an auspicious day in the fifth month of a first pregnancy. The pregnant woman wearing rich ornaments and clothes worships the *gotraj* (family goddess). When the worship is over, her husband's sister binds round the woman's right wrist a silver ornament called *rākhaḍī* (guard), receiving a money present in return. Close to the *rākhaḍi* is tied a piece of black silk in which are wrapped dust brought from four cross roads, red ointment from the image of the god Hanuman, and pieces of iron, gold, coral and pearl. This ornament is worn with the object of keeping the woman and the child from evil influences. On the day of the guard-binding

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Brāhmaṇas and relations are fed and from this day the pregnant woman is not allowed to draw water or do any other heavy house-work.

The Second, corresponding to the fifth of the Vedic sṁaskāra is known as *sīmanta* that is hair-parting or more commonly *kholobharvo* that is lap-filling. It takes place on any lucky day between the sixth and the eight month of the first pregnancy. Seven or eight days before the hair-parting the pregnant woman is rubbed with a sweet yellow powder called *pithī*, and in the evening women come to sing songs specially composed for the occasion and are given one or two copper coins and betelnuts. The pregnant woman wearing rich clothes sits on a stool fronting the singing women. Into her lap, while the women sing and music plays, a woman who has never lost a child drops five pounds of rice, a cocoanut, five betel-leaves, five cloves, five cardamoms, five betelnuts, five lotus-seeds, ten flowers, and a rupee. The pregnant woman falls at the feet of her mother-in-law to whom she hands the articles dropped into her lap. Silver coins are distributed to the mother-in-law and other relations. The woman goes to bathe at a relation's. On her way back followed by women singing songs she walks on cloth spread for her and under a moveable cloth canopy. At every step her sister drops a betelnut which her husband's sister picks up When the woman reaches the front of her house a pot filled with water is waved round her head. She then enters and bows before the *gotraj* (family guardian). If the fire is alight it is brightened by pouring clarified butter over it. The woman sits in front of the fire dressed in white with a peacock feather, an arrow-head and spindle needle over her head, and a rosary of 108 *umardā* (Ficus glomerata) figs round her neck. Offerings of clarified butter are made to the fire with *mantras* (holy verses). The husband takes his seat near the altar, sips water, contemplates the god Ganapati, and makes a *saṅkalpa* (resolution) to perform together all pregnancy rites from the *garbhādhān* (foetus-laying) to the *sīmantonnayana* (hair-parting). He begins by offering clarified butter to the fire to make up for his neglect to celebrate each of the rites at its proper time. He then performs the *garbhādhāna* (foetus-laying) the first of the sixteen Vedic *saṁskāras* with offerings to fire and repetitions of *mantras* (holy text). Next comes the *puṁsavana* (male-making), the second of the sixteen purifying rites with offerings and spells, when a piece of the root of the banian tree is crushed and the juice dropped thrice into the right nostril of the pregnant woman.

Upanayana or Janoi.

The *upanayana* or *janoi* (thread-ceremony) as it is popularly known at present is the twelfth vedic *saṁskāra* (ritualistic ceremony) involving various acts one of which is the investing a *baṭu* (boy) with a *yajnopavita* or *janoi* (sacred thread). Hindus claiming a place in the first three *varṇas* (classes) *i.e.*, the *dvijātis* (twice-morn) consider

1. If the husband is bashful or unwilling to perform the ceremonies a Brāhman is asked to do what is necessary.

upanayana as an essential *saṃskara* (purificatory rite), which formally initiates one to *brahmacaryāsrama,* the stage of studenthood, which, when concluded with the rite of *samāvartana* makes one fit to marry or enter *gṛhasthāsrama,* the householder's stage.

In Gujarāt, Brahmins and allied communities, the Bramhakṣatris and the Mathura Kayasths consider themselves by tradition entitled to undergo the *upanayana.* The Rajputs claim the right to wear the sacred thread with the same formalities as Brāhmaṇas, but only a few are careful to invest their boys at the proper age. The Meshri Vanias who are staunch adherants of the Vallabha sect, both men and women wear instead of the sacred thread round their neck a *kanthi* (necklace) made of basil beads.

The boy's father when he intends to perform *upanayana* of his son goes to an astrologer and asks him to fix a lucky day for girding the boy. The astrologer refers to his almanac and names a day in one of the five following sun-northing or waxing months. *Māgha* (January-February); *Phālguna* (February-March); *Caitra* (March-April) *Vaisākha* (April-May); and *Jyeṣtha* (May-June). If the boy was born during one of the five northing months the astrologer must avoid his birth-month and if the boy is the *jyeṣtha* (eldest) of his family, the astrologer must avoid the month of Jyeṣtha. The thread-girding always takes place between morning and noon, never after midday. When the ceremony is to be performed on a grand scale, a *mānḍava* (booth or porch) is built and invitation cards sent to even distant relations and friends. Two or three days before the appointed day a carpenter brings four wooden posts called *māṇekstambha* (ruby pillars) of which the women take charge after throwing rice and red powder over them. Then the boy worships the posts and while the women sing, a carpenter sets the four wooden posts one at each corner of the booth or bower. The day the *mānmdvā* is built the *ghāṇ* (rice-pounding) ceremony is held and the boy is rubbed with turmeric paste. On the morning of the rice-pounding day the family priest makes the boy worship the god Gaṇapati and the Matṛkās (Mothers) who are represented by two large painted earthen vessels with a small pot in the neck of each and in the pot's mouth a cocoanut and mango leaves. A clarified butter lamp is lighted and two baskets called Ranyadeva holding powdered cowdung and grains of wheat are placed close by and a space is surrounded with quartz lines and fresh smeared cowdung. From this day till the thread-girding day the women of the family sing songs both in the morning and evening each time receiving five betelnuts.

A day before the thread-girding the spirit worship suited to joyful events is performed. On the morning of the thread-girding a quartz square is traced in the booth, earthen altars are built, and three *pāṭlās* (wooden stools) are laid out. When the boy and his parents have bathed, the family priest asks them to engage themselves in the task of performing the thread-girding. They come out

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Upanayana.

of the house and take their seats on the three stools in front of the altar. The father begins the ceremony by giving away some cash to make up for his neglect in failing to perform the *saṁskāras* at their proper time. The family priest places a cocoanut and some wheat in the boy's hands and leads him to the *gotraj* (family goddess) before whom with a low bow the boy lays the cocoanut and wheat and returning sits between his parents. First to perform the *jātakarma* (birth rite), a fire is lighted and the father taking clarified butter, honey, curds and water in a pot dips a gold ring into the mixture and drops what he gathers into the boy's mouth. The father touches the boy with his right hand saying "Be thou as hard as a stone or a pickaxe and pure as gold. Mayest thou who art no other than my own soul live a hundred years". Next to perform the name-giving rite the father having ten times dropped clarified butter into the fire writes the intended name on a betel leaf with redpowder and speaks it loudly into the boy's right ear. The worship of the Brāhmans who recite holy blessings ends the ceremony. After the name-giving comes the eighth of the Vedic *saṁskāra nishkramaṇa* (going-out ceremony) in which the father or mother of the boy holding in one hand a cocoanut, a betelnut and some cash and flowers and the boy in the other walks out of the house, offers the cocoanut and other articles to the sun and shows the sun to the boy.

The Yajurvedi Brāhmaṇas may perform on this occasion the ceremony of ear-slitting. The place in which the slit is to be made, is marked with vermilion and the boy is fed with sweetmeats. The right ear is first bored then the left one. Next follows the *annaprāshana* (feeding) ceremony. Rice is cooked in a pot placed over the fire on the altar and out of it four offerings are made to the sacred fire kindled on the occasion. A little of the rice is then placed in a gold or silver dish mixed with curds and clarified butter and sugar. The mother places the boy in her lap and takes a little of this mixture on a gold or silver coin and feeds him with it. Then comes the ceremony for ascertaining the calling or profession which the boy will take to in after-life. The boy is seated on the ground and before him are placed a manuscript, a piece of cloth, a pen and inkstand, and a silver coin. The boy is asked to take any of them and the articles picked up indicates the profession he will follw in after-life. Then comes the ceremony of tonsure and a thread-girding.

Janoi.

When the boy is bathed and dressed in rich clothes with ornaments the father or some disciple of the family priest of the same age as the boy leads the boy to the priest who seats him on his right. The boy asks the priest to make him a Brahmachari (Vedic student) and the priest takes off the boy's clothes and girds him with a *muñj mekhalā* (girdle of *muñj grass*). Round his neck is fastened a sacred thread prepared by a Brahman who spins a cotton thread as long as ninety-six times the breadth of four fingers. The thread

is first folded into three and again trebled and the folds held together by a knot called *brahmagranthi* (Brahma's knot). The boy is given a new cloth five cubits long, a *khakhar* (Butea frondosa)[1] staff as tall as the upraised end of the boy's top knot, a piece of deer skin, and a loincloth, *langoti*. A wooden stool is set near his father and the boy is seated on it facing east. The preceptor takes water into his hollowed hands and offers it to the boy who thrice sips it. The preceptor then gives the boy a cocoanut and taking him by the hand goes out of the booth and both bow to the sun. On their return to their seats the preceptor takes the boy's right hand and asks him to state his name and to say whose Brahmachari he has become. When the boy mentions his name and says he is his preceptor's Brahmachari, the preceptor lets go the boy's hand, takes him round the sacrificial fire, and seating him by his side drops nine offerings into the fire. He then says to the boy: You have now become a Brahmachari; you must observe religious exactness; you must sip a mouthful of water before taking food; you must not sleep during the day; you must control your speech; you must keep alight the sacred fire and cleanse your mouth after taking food. The *Mahānāmya* (great-name-telling), the thirteenth of the Vedic *Saṁskāra* is then performed. The boy sitting on the north of the fire bows to the preceptor and begs to be initiated into the mysteries of the sacred verse; the boy and his preceptor or father are covered with a shawl and the preceptor and begs to be initiated into the my (*gāyatri*) into the boy's right ear first syllable by syllable, next phrase by phrase, and then the whole verse. Then the shawl is taken away and all return to their seats and kindle the fire by putting on *samidh* (butter-smeared sacred wooden chips) three times. The boy holds his hands over the fire and raises them in front of his mouth. He takes the ashes from the altar and marks his forehead with them. He bows to the preceptor and the fire and begs alms from his mother. The mother brings on her head a bell metal plate marked with a square tracing of redpowder in which are set four balls of sweet rice each weighing about a pound, a rupee and a cocoanut. The boy's brow is marked with redpowder and the plate is handed to him. If the boy is betrothed* his mother-in-law or any other woman of the girl's family makes a similar present. In the absense of any member of the betrothed's family the boy's maternal aunt presents the articles mentioned above. When the alms giving is over the fourteenth of the Vedic *saṁskāra samāvartana* (return of the

Mahānāmya.

Samāvartana.

1. A *brahmacāri* has to wear two garments, one for the lower part of the body (*vāsas*), another for covering the upper part of the body (*uttarya*), has to hold in his hand a *daṇḍa* (staff) meant for support or protection; and wear a girdle round the waist. The various *gṛhyasūtras* make distinction regarding this equipment of the *vedic* student according to his *varna*, e.g., Parasara prescribes lower garments of cotton but coloured reddish-yellow for Brahmins, dyed with madder for Ksatriyas and dyed with turmeric for Vaisyas; a skin of a black deer for Brahmins, that of *Ruru* deer for Kṣatriyas and that of cow or goat for Vaishyas; and similarly staffs of *palash*, *bilva* and *udumbara*, and girdles of *munja* grass, *murva* grass and of hemp respectively for the three classes.

* It is customary for Gujaratis to perform *sagai* (betrothal) at an early age.

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Samāvartana.

student) begins. In this ceremony water from eight new pitchers is poured in an unbroken stream over the boy's head who is then rubbed with turmeric powder and bathed. The boy makes over to the priest the loincloth, the staff, the deer skin, and the grass ropes and puts on new clothes presented by his maternal uncle and takes the staff in his hand. He presents the Brahmans with money, and they repeat blessings over his head His relations give him a rupee or two.

In the afternoon male and female relations arrive. The boy is dressed in a coat, waistcloth, shoes and turban, flower garlands are hung from his head and around his neck. in his right hand he carries a bamboo to which is tied a piece of cloth containing seven cakes, a manuscript of the Veda is put under his arm and an umbrella is held over his head. As the procession moves music plays and women sing. When it reaches the street corner the procession stops. Two wooden stools are placed at the street corner on one of which is set the manuscript of the Veda and on the other the boy. The manuscript is worshipped and round it a circle is drawn on the ground by pouring out water to represent the seven seas. The boy is advised to give up the idea of travelling in search of study as he will have to cross seven oceans and meet with other difficulties. When the worship of the oceans is over the boy rises holding the Veda under his arm and the staff in his right hand. He then runs away and after he has gone a little distance his maternal uncle runs after him to catch him. When his uncle has caught him, he promises the boy if he returns home he will get him a wife. The uncle then takes the boy in his arms and walks under a shawl held over his head by four men. All the way as the procession returns to the boy's house Brahmans keep reciting Vedic *mantras* (texts) On reaching home his mother waves water round the boy's head and makes him bow low before the family goddess, the family priests, and the family elders. In the evening a caste dinner is given or at least friends, and relations are fed For some days following the boy goes out to dine at the house of different relations and friends and according to custom is given copper or silver coins.

MARRIAGE.

Of the sixteen *saṁskāras* prescribed for the Hindus by the *gṛhyasūtras*, *vivāha* * (marriage) stands third and in its essence it is a ritual and a formality which an individual has to undergo to be able to start his or her life in the *gṛhasthāśrama* i.e., the householder's life.

Monetary consideration is almost invariably the condition at a marriage. But regarding it no uniform rule prevails Some castes put a price on the bride, others on the bridegroom and there are some who do not put a price on either of the two. A few have the custom both of bride price and bridegroom price. The five commonest arrangements are: (1) the bridegroom settles a certain sum

* In Gujarati *vevāhu*, a corruption of the Saṁskrit word *vivāha* indicates the betrothal.

on the bride called *pallū* which becomes a part of the *stridhan* (dower); (2) the bridegroom receives a dowry with the bride; (3) the bridegroom pays a sum of money to the bride's father; (4) no stipulation is made about dowry; (5) the marriage is agreed to on the understanding that a counter-alliance will follow. Of these arrangements the first is the commonest. The second is found among Anāvaḷas and certain other Brahmins, Pātidars (of Charotar), Rajputs, and Brahma Kshatris; the third occurs when the bridegroom is a widower or of inferior family; the fourth is found among very few sub-divisions of Brahmins and extensively among lower classes; and the fifth which in essence is a return marriage is adopted to find brides for men of low *kul* (family) or for those who cannot otherwise secure them. The actual cash paid to the bridegroom's father is called *vaṅkḍo* and it is settled at the time of the betrothal. In some communities further sum nearly half as much as the *vāṇkḍo* paid is demanded from the bride's father when the bride goes to stay at her husband's house. *Paithan* (literally settlement) a word of the same meaning as *vāṇkḍo* is used among Pātidars and when a man of low family marries his daughter in a high family he has to pay a large amount as *paithan* to the bridegroom's father.

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Rules of Endogamy and Exogamy.

Rules of Endogamy: The rules of endogamy have now come to mean that the members of the same *varna* (class) who at the same time belong to the same *jnyata* (caste or sub-caste) could only marry each other.

Rules of Exogamy. The *sāstras* ordain that a person should not marry in his own *gotra** or *pravara,* and within six or seven degrees of relationship on the father's side and four or five on the mother's side. Only Brāhmans as they know their *gotra* can abide by the rule of *gotra* exogamy. The rule forbidding marriage within the same *pravara* is not observed by any of the Brāmaṇas of Gujarat, not even by Nāgara Brāhmans. There would be found many Brāhmans who do not even know their own *pravara*. Only the *gotra* of the father and not of the mother is considered when a marriage alliance is contemplated. Among the Rajputs, the place of *gotra* is taken by the *clan*, *e.g.*, Jādejā, which is an equally strictly exogamous division.

Marriages are generally arranged by the parents or elders of the boy and the girl. Social conditions, however, among advanced classes have by now improved to the extent of allowing the boy and girl, if not to court each other at least to cultivate enough acquaintance to be able to make a free choice.

Sagāi (betrothal).

Among almost all Hindu communities in Gujarat there is a custom of long betrothals *i.e.*, the betrothal known as the *sagāi* or *vevāha*, takes place some years before the marriage or *lagan*. It is generally a short ceremony. There is no fixed rule as to which of the parties should make the offer.

**Gotras* are the names of several eponymous ancestors, each *gotra* containing exogamous sub-*gotras* named after more recent eponymous ancestors and called *pravaras*.

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Betrothals are always verbal and never written but are binding. However, it may sometimes be broken off by payment of a fine. A general rule prevails that if either of the parties to be married becomes maimed or invalid the other is freed from the promise.

No rule prevails regarding the length of time between betrothal and marriage. However, death in either of the families may put the marriage off several months. The auspicious day for the wedding has to be fixed in consultation with an astrologer. It should be fixed in any of the five northing months of Māgha, Phālguna, Caitra, Vaiśakha, and Jyestha in which Jupiter and Venus are in conjunction with the sun. For marriage purposes every twelfth year when Jupiter is in the sign of Cancer is altogether avoided. At the instance of the girl's parents a day on which the moon is favourable both to the girl and to the boy and which is auspicious in all other respects is fixed for marriage and is communicated to the parents of the boy.

Marriage preparations

Great preparations are made on both sides. The house is freshly white-washed. Related womenfolk are invited to come and help in preparing *pāpad*, *vadi* and *sev* (kinds of wafer biscuits, balls and vermicelli) for use at marriage-dinners and distribution among caste people. The building of the *māndvo* (marriage porch or booth) is begun a few days before the wedding. The *ghānā* (rice-pounding) ceremony is held and the bride and bridegroom's face, hands and feet are rubbed with *pitthi* — a mixture of turmeric powder, water and perfume — at their respective houses. Only married women whose husbands are living can take part in the ceremony. Women sing songs as they rub the mixture.

On the marriage day or on the day previous, as a prelude to the *lagna* (wedlock) ceremony a number of minor ceremonies of the nature of propitiatory rites are gone through both at the bride's and the bridegroom's.

Mātṛkā-pujana.

In the morning the head of the house bathes, performs *sandhyā*, and worships Ganapati. He next worships the *Varsodhārās*. These are seven legendary streams — Sri, Lakṣmi, Dhriti, Medhā, Pragnyā, Svahā, and Sarasvati — represented by seven *Kanku* marks on the wall. Molasses, rice, *śami* (Prosopis spicigera) leaves are stuck over the seven spots and along with the *Varsodhārās* are installed the *Mātṛkās* (Mothers). They are set up in the form of sixteen small heaps of rice placed on a piece of cloth spread over a *pāṭlā* (wooden stool) set in front of two big earthen vessels each with a small earthen pot in its mouth and in the small pots a cocoanut and mango leaves. Over these vessels are hung two baskets with wheat seedlings grown in them. The wheat sprouts deified as *Ranyādev* or *Rannade* are worshipped by all the castes, and are called the *Gotraj**

*This is a feminine deity and may be worshipped for eight days to ward off evils. After the marriage the married couple worships the deity and then the baskets are thrown into a well.

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MARRIAGE.

Abhyadhika Shrāddha.

by some. The worshipper in token that the *Varṣodhārās* and *Mātṛkās* are set up as gods throws rice on them. He sets a cocoanut in front of each of them in the hope that they may fulfil his desires. He then begins the *Vṛddhi* (increase) or the *Abhyadhika Shrāddha*. Five small bundles formed by twisting and tying the roots and the tips of *kusa* grass are laid on a *pāṭlā* facing the worshipper. In each of these grass bundles when united by the funeral rites ancestral spirits house themselves finding a face in the root knot and feet in the tip knot. Of these five bundles or ancestor-lodgings two represent the Viśvedevas (house-guardians) and of the remaining three, one represents the mother, the father's mother and the grandfather's mother, a second the father, the father's father and the father's grandfather, and a third the mother's father, the mother's grandfather and the mother's great-grandfather. Water from a copper dish in which have been dropped a blade of *darbha** *Kanku* and grains of barley and sesamum is sprinkled over the bundles. The performer knots the end of his waistcloth sprinkles over his head water from the dish with a blade of *darbha* or *kusa* grass and pours water on his hand in token of his promise to perform the worship of the Vishvedevas and the ancestors. He lays a blade of grass under each bundle to serve as a seat and throws rice over them. Two *Khākhar* (Butea frondosa) leaves are laid on the ground in front of the two Vishvedevas and two blades of *darbha* grass are laid over them with their ends to the east. Water is poured on the leaves and rice and flowers are offered. The blades of *darbha* grass are picked up and laid on the bundles representing the Vishvedevas and the water in the *Khākhar* leaves is poured over them The same details are repeated in the case of the three bundles where the ancestors are lodged. The worshipper then gathers all the *pavitras* (pieces of *darbha* grass) and places them on one side. A blade of *kusa* grass is laid in the south-east and on the grass rice is heaped to serve as food for the Viśvedevas. The worshipper then sweeps the ground in front of him and taking into his hands water and three blades of *kusa* grass marked with *Kanku* pours the contends in three lines from east to west. As food for the ancestral spirits nine balls of cooked rice and *kunsār* (wheat flour mixed with sugar and clarified butter) are laid on three blades of *kusa* grass in three parallel lines. Over each of the three lines of balls is laid a piece of white cloth or in its absence three threads. The *piṇḍas* (balls) are then worshipped with sandal-powder and flowers. When the worship is over the worshipper salutes the *piṇḍas*, offers *dakṣaṇā* to the Brāhmaṇs and receives their blessing. He then throws rice over the balls, removes the blades of underlying *kusa* grass, and smells the *piṇḍas*. This offering to the fathers differs from other funeral ceremonies in the detail that the worshipper does not wear the sacred thread on his right shoulder.

* The *darbha* (Poa cynosuroides) also called *kusa* is held in such peculiar veneration by the Hindus that every law-book and almost every poem in Sanskrit contains frequent allusions to the holiness of the plant.

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On the day the *gotraj* is invoked, Ganapati is installed and worshipped. The image of this god and his two consorts, Riddhi and Siddhi, is painted in many colours or drawn in an outline of *sindur* (red lead) on a wall in a room. In many castes it is the right of the daughters of the family to worship the god and receive presents in return.

After Ganapati, is worshipped the *mandapa muhūrta* (installation of the booth) ceremony is observed at both the places among all the castes, but Vanias give it a great importance.

The jān

When the *Vrddhi Srāddha* and *Matrkā* installing is over, it is customary among some communities to perform an elaborate ceremony of *Grahasānti* (planet-soothing) in which a number of offerings of clarified butter and sesamum are made to planets and constellations and at the end Brāhmins are worshipped and presented with gift of money or clothes. At the close of *Grahasānti*, if the bride belongs to another village, the *jān* (procession of carriages) consisting of first the drummers and pipers, then the male relatives, then the bridegroom on a horse or in a car, then the women singing, starts to go to the bride's village. When the procession arrives at the village, parents and the male relations of the bride go to receive them. The girl's father embraces the boy's father, salutes him, and escorts the procession to some house in the village which has been specially engaged for their use.

The newly arrived guests dine with the girl's father, return to their lodging and again visit the girl's house taking on a large copper silver ornaments, silk cloth, crystal sugar, cocoanuts, *kaṅku*, dried dates and *moda* (brow-spangles). These things are ceremonially presented to the bride.

The bridegroom now gets ready to start for the marriage hall. Women of the bride's party bring with them *kalvo*, i.e., a food offering consisting of some sweet wheat cakes, sugar, *ghee*, etc. These are served to the bridegroom on a brass plate and his hands are washed with sugar and water.

Vāgdān.

Among Vadnagara Nagars there is a custom of performing *vāgdān* (plighting the troth) on the day before marriage.

Mosālū.

Among all Gujarāt castes, just before the marriage ceremony or on the day before it, the bride's maternal uncle and his wife bring presents for the bride and her parents. These presents are known as the *mosālū*, a present from *mosāl* (the maternal uncle's house, and are brought in a procession with music and women singing songs. In the procession the presents are displayed on large open baskets carried by two women. The bride's presents consist of her wedding dress or ornaments, especially *cuḍo* (bangles) to be worn at the time of wedding ceremony. The bangles are made of ivory and dyed red, a strip of gold covering the whole circle except the two raised edges. Usually three *cuḍo* are worn on each wrist together

with two broad glass bangles called *kaṅkaṇ* which are also brought along with these presents. These ivory *cuḍo* which formerly used to be nearly two inches broad, are, as modern fashion dictates, hardly one — tenth of an inch wide The bride's parents also receive presents of rich items of dress. In some castes the bridegroom also is presented with *mosāḷū* consisting of cash and a rich dress. Even among castes where there is no such custom, the bridegroom's wedding dress is invariably presented by the maternal uncle.

Wedding procession.

The bridegroom's procession is a grand affair among all Gujarātis. The larger the crowd, the greater is believed to be the social position of the bridegroom's father. The procession starts, first the drummers and pipers, then the male relation, then the bridegroom richly dressed riding on a caparisoned horse, with a canopy over his head. He is dressed in an old fashioned coat known as *jāma* made of dazzling golden cloth, and a turban of similar cloth. From the turban hang golden threads reaching up to the bridegroom's chin, covering his face completely. The Nagar as well as Khadyata Vania bridegroom covers himself with a Kashmere Shawl over which he wears a *khump,* a kind of robe made of a number of long strings of flowers reaching right up to his knees and gathered together at the head (which is otherwise uncovered), covering his back and shoulders and leaving his face and front uncovered.

The mother of the bridegroom or the bridegrooms father's sisters as in some communities carries in her hand a *Rāman divo* or *Olaman divo,* a lamp of peculiar shape.

At the bride's, the bridegroom dismounts and is made to stand on a *pāṭalā* at the entrance of the marriage booth. The bride's mother with priest and several women accompanied by the husband of one of the bride's sisters go to where the bridegroom stands. The bride's mother puts on a *moḍa* (coronet) and then waves a miniature plough, a grinding pestle, a churning stick, and an arrow four times over the heads of both the bridegroom and the bride's sister's husband and throws pieces of *juvār* (Sorghum vulgare) stalks in all directions. She piles at the bridegroom's feet a *saṁpuṭ (koḍyū* box) made with two earthen cups painted white with chunam and tied together with a red string so that their edges touch each other. She makes a *cānḍlo* (mark with *kaṅku)* on the bridegroom's forehead and squeezes his nose. The bridegroom breaks the *saṁpuṭ* and entering the booth takes his seat on a *pāṭalā* in front of the altar.

The marriage service now begins

Marriage service

The rites and ceremonies (*vidhi*) to be performed at the *vivāha* (wedding) vary in their observation according to caste and region. However, the rites commonly accepted by all the Brāhmanic Hindu communities are : the *kanyā-dāna,* the *vivāh-homa,* the *paṇigrahaṇa,* the *agni-parinayana,* the *aśmārohaṇa,* the *lājā-homa,* and *saptapadi,* each succeeding in the order given here. These are interpolated by a number of minor ceremonies such as : feet-washing,

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honey-sipping, rice-throwing, moment-naming, present-making, clothes-worship, oath-taking and feeding.

Hastamelāp.

The priest puts the bride's right hand in the bridegroom's right hand and places a blade of *darbha* grass (Eragrostis cynosuroides) between their hands, and a cloth is drawn between the two. Until the lucky moment arrives the priests chant verses; the bride chews rice and the bridegroom chews betel; while the relations and others clustering round the bride and bridegroom, at the end of each verse, keep on silently throwing a few grains of rice over them. When the lucky moment has come the priests ceases chanting and the cloth is drawn towards the north; a brass plate is beaten with a stick and at the signal the musicians raise a blast of music; the priest repeats the names of the bride and the bridegroom, and the names of their fathers, great grand-father and families and the names of their *pravara* and *gotra* (stock branch) and *veda*. Repeating these particulars along with the priest, the bride's father solemnly declares that to achieve happy results he gives his healthy daughter to the bridegroom, and that she is no more his. The bride's mother says that she also fully consents to this gift and the father pulls out the blade of grass from between the couple's joined hands and the marriage is declared solemnized. Great importance is attached to this pulling of the blade of grass at the particularly propitious moment, as this completes the *hasta-melāp* (joining of hands) of the bride and bridegroom.

Kanyādāna.

The guests now depart receiving presents of betel leaves and cocoanuts. While the women of the brides family sing wedding songs, the bride and bridegroom receive presents from their friends and relations, each present being duly noted in writing by one person belonging to the bride's and by another belonging to the bridegroom's family.

After receiving the presents, the bride and bridegroom go to a chamber called *kautukagraha* in the ancient books, or known as *kobū* in some castes. Here the bridegroom offers the wedding robe called *chundadi* to the bride who puts it on and ties one end of it to the end of the bridegroom's robe. Or, a piece of cloth over which the sign of *Swastika* is made with *kanku* is provided and one end of it is tied to the bride's garment and the other to the bridegroom's. The bridegroom then adorns the eyes of the bride with black pigment, combs her hair, gives in her hand a mirror to look into, and throws round her neck a garland.

Vivāha-homa.

When the couple returns from the *kautukaghar* the *vivāha homa* (marriage sacrifice) begins. Just near where the *kanyādana* had taken place, a small square booth called *cori* is made for the purpose. At each of the four corners of the *cori* bamboo poles are erected and in the space between these poles at each corner seven empty water pots are piled, one over the other, the biggest at the bottom and the smallest at the top. Among some castes the pots are

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brass ones and among others they are earthen ones. The pots are painted white with wet chunam and five red marks are made over them with *kaṅku*. Festoons of the leaves of Asoka, popularly called *Āsopālav* are tied on all the four sides. Facing the east the bride and bridegroom sit on one long *pāṭalā* (wooden seat) which must have no nails to it, the bride sitting on the bridegroom's right. The priest having made eighteen offering of *ghee* in the name of eighteen gods and five more in addition, the father or the brother of the bride applies the *ghee* ladle to her head and blesses her. The bridegroom takes the bride's open right hand into his own right hand, saying "Oh wife, I hold thy hand that till our old age we both may live together." The priest sets on the north-east corner of the altar an earthen waterpot full of water into which coins have been dropped and its mouth closed by the mango leaves. The bridegroom makes the bride rise and with his left hand hold her right toe on a stone set to the north of the fire repeating the sacred verse which enjoins the bride to be firm as the stone. He takes a round of the sacrificial fire and the stone, the bride following him closely. When the round is finished, the bridegroom holds the bride's palm over his own and in the bride's palm the bride's brother or a person acting in her brother's place drops some *ghee* and fried grain and the bride lets them fall as an offering into the fire. The circuit making and offering of fried grain are repeated four times. To the north-east of the fire seven small heaps of rice are piled and the bride levels them one by one with her right toe. These are the seven steps which when once taken the marriage cannot be annulled. Water from the pot set to the north-east is then sprinkled over the heads both of the bride and bridegroom. Afterwards the bridegroom lays his right hand to the bride's right shoulder, the priest repeating on his behalf the verse meaning " Oh bride, give your heart to my work, make your mind agreeable to mine. May the god Brhaspati make you pleasing to me." The bride and bridegroom are then taken out and shown the Polar Star. Fresh offerings are made to the fire and the bride and bridegroom bow low before the family gods, the priest, and the elders including the father-in-law and mother-in-law. Then the bridegroom with the bride and his own relations returns to his home.

Lājā-homa and Saptapadi.

Among the Brāhmins there is the custom of performing the *cārubhakṣaṇa* or *carubhakṣa* (cooked-food-eating) ceremony at the bride's house usually on the forth and sometimes on the next or third day after marriage. The couple sit in the booth called *cori* and the priest lighting a fire performs a sacrifice. He reads out *svastivācana* and the blessings of the forefathers are invoked, after which the couple feed each other with *kansār* as on the wedding day. Then the bridegroom's people are presented with cash and clothes by the bride's people. These presents are given even among castes

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which do not perform carubhakṣaṇa. The bridegroom is also presented with a rich dress, a couch, silk bed and big copper vessels. These *gifts* are called *peherāmaṇi*, after receiving which the bridegroom's people finally leave the marriage booth and take the bride with them in a procession just as on the wedding day.

At the bridegroom's house, both the bride and bridegroom alight and stand on wooden stools till water is waved over their heads. When they proceed to enter the house some young members of the family keep the door shut until the bridegroom promises from outside the door to arrange for their weeding. On entering the house the bride and bridegroom takes their seats in front of the *Mātṛkās* (house guardians). Here they untie the *miḍhaḷ* bracelet from each others' wrists, unfasten the ends of their robes which have been knotted together, and play with *koḍis* (Cypraea moneta) shell money. The baskets of wheat seedlings are worshipped and each lashes the other with a *kordā* or twisted cloth. In honour of his marriage all relations and guests and castemen are fed at the bridegroom's house. On a lucky day within a month of the marriage a party comes and fetches the bride back to her father's.

DEATH AND FUNERAL.

Svargārohaṇa literally heaven-climbing, are the funeral ceremonies performed to help the spirit of the dead to reach heaven. A Hindu on his death-bed gives a Brāhmana the *gaudān*, that is, the gift of a cow or its worth, an amount which must not be less then one rupee and four annas. Some drops of *Ganges* water, if available, are poured into the month of the dying man along with a few *Tulsi* leaves. *Viṣṇupūja* (Viṣnu worship) is performed and money, clothes and grain are distributed to Brāhmana priests. After death, the body is washed with water and laid with the head northwards on a part of the floor which has been smeared with fresh cowdung. Close by is set a lighted lamp fed with clarified butter. The news of the death spreads and caste people come for the funeral. While the women are wailing, two or three men fetch from the market two bamboo poles, coir ropes and pieces of bamboo, and if the deceased is a married woman a silk robe and a red thread called nādā. The pieces of bamboo are fastened to the poles by coir ropes at short distances. The bier is then washed with water and is taken inside the house. The body is laid on the bier and tied to it by the coir strings and shrounded with a silken robe in the case of an unwidowed women, or with a shawl or other costly cloth in the case a rich man, and with a white linen sheet in other cases. The bier-bearers bathe and dress in silk or wet waistcloths The bier is raised on the shoulders of four of the nearest relations and is borne forth, feet first, preceded by one the nearest relations carrying an earthen or copper vessel with fire and cakes of cowdung. On the way the bearers chant together, "*Rām bolo bhāi Rām*" — say Rāma, brother, say Rāma".

The women accompany the funeral party to the first meeting of four roads where they beat their breasts and return wailing. Wearing a robe and a bodice they go outside the town or village

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to bathe. After bathing they return either in wet or in fresh clothes *and the nearest relatives wait in the house till the daghus* (funeral party) return from the burning-ground.

On their way to the burning ground the funeral party halts at a fixed place when the bearers of the corpse reverse its position and henceforth carry it head foremost. When the burning ground is reached which is usually on the banks of a river the bier is laid on the ground close to the water's edge. Two or three persons go to fetch longs of wood if they are to be had close by. If no wood is to be had close to the burning ground it is brought along with the body from the village or town. The logs are sandal or other costly wood if the deceased is rich and of *bābhul* wood mixed with sandalwood pieces in other cases. When half of the logs are piled the body is removed from the litter and laid upon the pile with its head to the north. The religious part of the ceremony is then performed by the son or other nearest of kin and in the case of a married woman by her husband. He offers to the dead balls of rice flour and as he offers each ball, repeats the proper *mantra*.* The first ball is offered at the time of moving the body from the inside of the house, the second at the entrance of the house, the third at the first street corner, the fourth at the place of halt, and the fifth when the body is laid on the half-built pyre. When the pyre is complete the Brāhmin priest starts chanting sacred verses and the chief mourner takes a lighted cowdung cake from the earthen jar, dips it in clarified butter and repeating *mantras* places it on the mouth of the corpse. He then moves five times round the pyre with a burning brand in his hand and lights it at the head. The pyre is then kindled and is left to the care of a few of the more experienced of the party. The rest of the mourners go to a distance and sit talking until the body is consumed. They then return and pour *ghi* on the fire to complete the burning. When the fire is burnt out water is poured over it and the embers extinguished. They gather the ashes and throw them into the river or if no stream is near, drop them into a pit dug for the purpose and sprinkled with water. The sixth remaining ball is laid on the spot where the body was burnt. The chief mourner who kindled the pile chooses from the extinguished embers two small pieces of bone and carries them with him with the object of throwing them with suitable ceremonies into a sacred river such as Ganges or Narmada. In some cases these pieces of bone are laid on the spot where the head of the body rested. At the funeral of a rich man a cow is milked on the site of the pyre and the milk is sprinkled around. The chief mourner fills with water the earthen pot in which the fire was carried and throws it backwards over his head. When this last rite is over the whole party leaves the burning ground lamenting but never looking back. On their way home at a river or pond the son and other relations offer the deceased *tilodaka* (sesamum and water), and

* In the case of Brahmins, Brahma-Kshatris and Rajputs a Brahmin priest is in attendance for administering proper *mantras* at all the death rites.

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then all bathe wash their clothes, return to the house of mourning crying aloud, and then go back to their homes. On that day no food is prepared in the house of the dead. The inmates are fed with food, prepared at the house of the father of the chief mourner's wife or at the house of some near relations or neighbours. Milk and water are set on the *tolla* (wooden peg) in front of the houses on the first day by a Brahman, and on the following three days by some members of the household. Letters called *chithis* bearing the sad news are sent to relations and friends who do not live in the same village, or town stating the time of death and the time when the death rites are to be performed.

A child's funeral does not differ from the funeral of a grown-up person. The exception is a babe of less than eighteen months, who is slung in a hammock-like shroud from a bamboo caried by two men or is borne on the shoulder of the chief mourner and accompanied by a few of the nearest relations, is carried to the burning ground and there burried with less ceremony than attends an ordinary funeral.

In ordinary cases on the day of the funeral or on the day after, friends and relations meet at the house of the deceased. In some subdivisions they meet in the evening of each of the first nine days, when, if the deceased is old, a Brahman reads to the women of the house the Garud Puran detailing the fortune of the spirit after death. In other cases at the house of the mourning for ten days, female relations and friends meet morning and evening, mourn, weep and beat their breasts.

Post-Funeral Rites.

The obsequies or the post-funeral rites generally start from the third day after death. The chief mourner on that day with relations and friends goes to the burning ground, pours milk over the cold embers, gathers the ashes and except a few bones which are preserved to be sent to some holy place or river, such as Banaras, Gaya or Sidhpur, removes them to some neighbouring tank or river and in place of the ashes he lays an offering of a wheat-flour ball.*

The *Śrāddha* ceremony (memorial rites) is performed by the chief mourner from the tenth to the thirteenth day; on the 11th day it is performed with the help of a Kayātiā Brāhmaṇa, and on the other three days with the help of the family priest. During the four days of the *śrāddha* ceremony, the chief mourner, instead of a turban, wears a *saṇiyā* (silk cloth) wound round his head. The *saṇiyā* is removed on the 13th day when his father-in-law presents him with a new turben. On the thirteenth day the family priest is presented with various articles designed for the use of the departed soul. During the first year, *māsiso* (monthly) *chhamāsi* (half-yearly) and *varshi* (yearly) *śrāddhas* are performed.

The soul, or one of the souls, of the deceased for twelve days hovers round his home and for its use pots of water and milk are

*This rite may have been performed on the cremation day

set on the roof. On each of the ten days after a death the chief mourner offers a rice ball or he offers ten rice balls all at once on the tenth day. On the eleventh day performer of the rites bathes and to become pure performs *prayascitta* (atonement). He then performs the *viṣṇupūjā* (worship of Viṣṇu) and the *vṛṣotsarga* (bull-leaving) in which calves are worshipped and given to Brāhamaṇas. Then follows the eleventh day *śrāddha* in which a ball of cooked rice is offered to the dead. On the twelfth day the sixteen monthly *śrāddhas* may be performed together and after them the *sapiṇḍikaraṇa* or ancestral *śrāddha* by which the dead joins the fathers or *pitṛs*. With the thirteenth day *śrāddha* the funeral rites come to an end.

RELIGION.

The distribution of the population of the Broach district by religion according to 1951 census was as follows :

	Rural.		Urban.		Total.
	Male	Female	Male	Female	
Hindus	252,906	239,385	45,982	42,658	580,931
Scheduled Castes	15,952	16,078	3,058	3,258	38,341
Scheduled Tribes	128,146	121.060	7,583	6,446	268,235
Sikhs	24	37	52	33	148
Jains	1,072	824	1,070	1,039	4,105
Buddhists	—	—	1	—	1
Zoroastrians	228	230	534	670	1,662
Muslims	39,796	38,167	18,698	17,354	114,025
Christians	2,329	1,922	417	426	5,094
Jews	—	—	—	1	1
Othey Non-tribal Religions.	5	3	31	29	68

It will be seen from the above figures that Hindus and Muslims form the two major religious communities of the district and the proportion of Zoroastrians or Pārsis and that of Christians is not numerically significant. The Scheduled Castes, who comprise those formerly labelled as untouchables, and the Scheduled Tribes or *Ādivāsis*, the aboriginal inhabitants of the district, are included among Hindus; their religion, particularly that of the *Ādivāsis*, can however be distinguished as Animism. Jains who claim to have religious principles which in some respects are different from those of Hinduism, form an important community in the district.

HINDUISM.

Hinduism as it is expressed through the religious practices of the people shows various phases of religious thought. "Hinduism of to-day is not the Vedic religion; nor is it the Purāṇic religion; nor is it the philosophical pantheism of the highly educated Brahman. It is a vast mixture, in which the Vedic worship of the great forces of nature, the Purāṇic *avatārs*, the philosophical doctrine of *karma* and be it noted - the pre-Āryan reverence for trees, stones, animals and tribal *totems* are inextricably intermingled".[1]

1. L. J. Sedgwick . *Census of India*, (1921) *Vol* VII *pt* I., *p* 63.

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HINDUISM.

In Hinduism we have, at the top of the ladder, Brahmānism represented by a few known as *Vedantists,* whose leading dogma, *Ekam eva adwitiyam,* 'There is but one being without a second' summarises their whole creed. According to them nothing really exists but the one Universal Spirit called Brahma or *Parmātmā* whatever appears to exist separately from the spirit is a mere illusion; *Jiwātmā* or the individual soul is identical with *Paramātmā* or the Supreme Soul, as microcosm with macrocosm; *Jīvātmā* is restrained from consciousness of its unity, and hence from union with Parmāt-*mā,* by the resultants of its previous *karma* or actions. So long as there remains attached to the soul a resultant of its previous actions, it is doomed to wander in repeated incarnations from body to body. Only those souls in which the resultant finally vanishes attain *moksa,* or emancipation. They lose all sense of individual personality by complete absorption (*sāyujya*) into the only really existing Being who is wholly unfettered by action and without qualities of any kind *(nirguna)* and is called *satcidānanda* because he is pure life, pure thought, pure joy.

A Gujarat Hindu attaches great importance to bathing. As a rule, he does not take his morning meal before having a bath. Theretore, he worships his family gods or goddesses, or goes to a temple of his sect for the same purpose. The *darsan* in the temple consists simply of getting a glimpse of the idol and saying *je, je, je,* chanting *bhajans,* hymns and leaving a few coppers or handful of grain in the dish kept for the purpose. On holidays he offers flowers to the idols. The temple is visited also in the afternoon by those who are very devout. Whenever he is at leisure, or in a contemplative mood, he mutters the name of Shri Rāma or Shri Krsna, either alone or in company with their respective consorts, for example, Rāma Rāma or Sitā Rāma, or Rādhā Krsna. He gives alms in the shape of a handful of rice, pulse or flour to Brāhmans and *sādhus.* He sets apart a portion of his food for dogs and cows which wander about in the streets. He often observes a fast on some day of the week, or on every eleventh day (Ekādashi) in a fortnight. He feeds Brāhmanas or Sādhus whenever he is inclined to accumulate extra merit He goes on a piligrimage to Dākorji, Narmadājī, Kalkā Mātā, Ambā Mātā and other places when he has taken a vow to do so, or whenever it pleases him. He believes in heaven and hell, and in the transmigration of souls. His next life and his going to heaven or hell depend upon his actions in present life. He hopes to better his position in this and in the life to come by his devotion to his god, his *dān,* charity to Brāhmanas, and his *dayā,* kindness.

ANIMISM.

The term Animism which was invented by Taylor as a general term suitable to the primitive religions of very backward people was used by the censuses of 1901 and 1911 to distinguish the religions of Ādivāsis i.e., the aboriginal population from that of the Hindu. The distinction may not be considered to be particularly significant

ANIMISM.

because *Ādivāsis* are essentially Hindus However, the term Animism may be used to express the various forms of characteristic beliefs of aboriginal tribes. In Broach district they consist mainly of Chodhras, Gāmits, Bhills. They worship two classes of beings: local or tribal divinities, and the spirits of their ancestors. Of the local or tribal divinities, *Khatridev*, a pillar of wood, is worshipped by the great majority. The other gods are:—*Simādio Dev*, a red coloured stone placed under a *sāmdi* (prosopis spicigera) tree and worshipped on marriage occasions; *Khetrapāl*, the god of boundaries, a stone carved with a figure of a horse: *Bābā Dev*, a clay image of a horse and rider, worshipped chiefly by Bhils; *Māvli* and *Bharmā Dev*, red stones set on hill tops, worshipped chifly by *Koknas*; *Vetāl Dev*, a round stone, about four feet high, also a hill god; *Magaria* and *Vāgh Dev*. o the alligator and tiger deities, chiefly worshipped by Gamits; and *Samla Dev* and *Hariā Dev*, specially worshipped by Dhodias. Among all the tribes the worship of their ancestors is the chief article of faith. A spot is set apart near each village as a *devasthān*, a holy spot. Here are raised wooden pillars and seats, dome-shaped pots of clay and stones painted red in honour of the village ancestors. With offering of small clay horses and cows, and with sacrifices of goats and fowls, the men of to-day court and honour the spirits of their forefathers They believe that, while all men of their class possess power over spirits, special skill in this matter belongs to two sets of persons, unfriendly *dākins* (witches) who stir spirits to work mischief, and friendly *bhagats* (exorcists) who cast out evil spirits The ill-natured *dākins*, who are supposed to have spirits at their back and to send them to trouble those against whom they bear ill-will, are generally old and ugly women. The well-disposed *bhagats*, who cast out evil spirits and heal the sick, are religious recluses who worship some one of the many forms of the *Devi* (Mother) and have in their huts a *dehrū* (altar) and on it an image of the goddess When a man becomes ill, or shows other signs of being possessed by a spirit, one of these *bhagats* (exorcists) is called in. He places some *adad* (phaseolus mungo) or grains of rice on a leaf and passes the leaf round the sick man's head. He then examines the grains and tells whether the patient is troubled by an evil spirit, or by the spirit of his ancestors. If the cause of the evil is one of his forefathers, the sickness matters little, as by simply making an offering to his tomb, a cure will be effected. If the patient is troubled by an evil spirit, the holy man repeats some incantations, strikes the patient gently with the branch of a tree and continues the treatment for some days till the patient has recovered or is dead The *bhagat* knows by whose power the spirit has been sent. In former times he used to name the *dākin* to the sick-man's friends, who would rush out and seize and torture her to death. Many Bhils have suffered in the past at the hands of law for their share in these murders, and the *bhagat* now wisely keeps the knowledge to himself.

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Beliefs and Practices.

The religious life of Hindus is mainly governed by the tradition of the caste-group to which one belongs. So great is the influence exerted by caste-rules on their daily life that the whole of their religion may be said to be centered in caste observances. Provided a Hindu observes the rules of his caste he is at liberty to hold any religious opinion he pleases. The Brahmans, except a few who belong to the Swāminārāyan sect, are followers of Shiva, and almost all have household gods whose worship some member of the family must perform. The family gods are some or all of the Hindu *pancāyatan* or the group of five, composed of a stone *liṅga* for Mahādev, a stone *śāligrām* or a picture of Shri Nāthji for Viṣṇu, a picture or metal image of Sakti, Bhavāni or Mātā, typifying divine energy, Gaṇapati, Sūrya or the Sun, or Hanumān, the Monkey-god. Their social and religious customs are chiefly ruled by the Mayukh, the Mitākshara and the Dharma and Nirṇaya Sindhu. They perform *Sandhyā* (twilight prayer) at least once a day, count their beads and repeat the *gayatri* or sun-hymn. As a rule, on Mondays, on the first and fifteenth of each month, and on the great religious festivals, men visit Śiva's temple for worship. Women are more careful than men to observe fasts, but are less regular in visiting temples. The priests learn by rote the ritual required at the different everyday ceremonies but with a few exceptions, have no claim to learning. The Brahma-Kshatris keep the rules laid down for Brāhmaṇas, read the sacred books, worship, meditate, repeat prayers, make offerings to the Sun and at meals put on a silk sacred cloth. The Kāyasthas belong to the Vallabhācāri sect, but some of them are Rāmānuji and others Saiva. The Vāniās are very devout and, as a class, are staunch adherents of the Vallabhacāri sect to which they were converted about four hundred years ago. They worship daily at the Vallabhacāri temples and in their houses. Instead of the sacred thread, both men and women wear round their necks a *kanthi* (basil thread necklace). They mark their brows with two up-right lines of *kaṅku* (red powder), rub their eyelids and foreheads with *gopicandan*, the yellow clay found near Dwārkā, Gokul and Mathurā, and imprint a seal dipped in sandal dust between the sectarian lines and on the temples, neck and arms. The Bhātias are Vaiṣṇav of the Vallabhacāri sect who strictly observe religious rites. Like the Vāniās, they visit Vaiṣṇav temples and worship in their houses the image of Viṣṇu in the form of Ranchhodjī and Rādhā Kṛṣṇa. The Luhaṇas are Vaiṣṇavas of the Vallabhācāri and Rāmānuji sects. Their family goddess is Randel Mātā and they are devout worshippers of Daryā Pīr, the spirit of the Indus. The Rajputs do not differ from other Hindus in their religious observances and practices. Though many are followers of the Vallabhācāri, Swāminārayaṇ, and Rāmānuji sects, Rajputs from remote ages have been partial to the worship of Shiva. At the same time, they worship all Hindu gods and goddesses and the shrines in their houses contain images of Śiva, Viṣṇu Gaṇapati and of the tutelary goddess of the clan. Among other castes, such as Kanbis, Kolis, Kachhias and the agricultural and artisan castes generally, a

striking feature is the great hold which comparatively modern cults called *mārga* or *panth* (ways) have taken of them. Of these the chief are Rāmānandi, Swāminārāyan, Kabirpanthi, Bijmārgi, Pranami or Meherājpanthi, Rāmasnehi, Dādupanthi, Rādhā Vallabhi, Santarāmpanthi, and Śākta or Vāmamārgi. The scheduled castes or, as they are popularly known, Harijans such as Dheds, are very religious and honour most of the gods, but chiefly Hanuman, Ganapati, Rāma, and Devi; above all, they revere the sacred basil or *tulsi* plant. As till recently they were not generally allowed to enter temples, people of these classes seldom worshiped at the temples or shrines of the village. In some hut near their dwellings is installed an image of Hanumān or of Meheldi Mātā before which, on holy days, a lamp is lit, and flowers are strewn. Those who can afford it are fond of going on pilgrimage to Dākore and the Mātā at Pāvāgadh and Ambāji. They did not pass into the building but stood in the portico, bow as they cought a glimpse of the image, and presented a few coppers to the temple servants. After the advent of independence untouchability has been abolished by law throughout the country and there is no longer any legal ban on temple entry for any Hindu. A belief in demons, sorcerers, witches, the evil eye and in omens is found more or less in almost all castes. The worship of ancestors, the elements, planets, the sea, rivers, animals, and plants, is common to all.

Offerings.

All the gods and goddesses have offerings made to them, either daily or on special days. Blood offerings are made to goddesses by Ahirs, Bharvads, Bhils, Charans, Dheds and other low castes. They are sometimes made even by high caste Hindus in fulfilment of a vow taken to avert or to cure some family sickness, or to secure the favour of some goddess. Such offerings are also made for the general good by villagers as a body, or by some wealthy villager on behalf of his village. Some high caste Hindus, who scruple to take life simply lay before the goddess a live cock, sometimes with one of its leg cut off, afterwards allowing the bird to go free. Bloodless offerings consist of grain, fruit, flowers and leaves. They are made both in everyday worship, and on special days, and differ for different gods. To the stone image of Shiva are offered the leaves of the *bili* tree *(aegle marmelos)*; to Devi or Mātā, Shiva's consort, red flowers are offered, especially those of the *karel* (oleander). The flowers of *ākḍo*, swallow wort, cannot be offered to any god except Hanumān. To Viṣṇu, in his form of Kṛṣṇa, are offered white flowers.

Spirits.

There is a widespread belief in spirits, *bhuts* and spirit possessions, *vaḷgaṇ*. Spirits are of two kinds, *gharnābhut* or family spirits, and *baharnābhut* or outside spirits. The influence of the family spirits is confined to the house or family to which it belongs. It does not trouble outsiders. A family spirit is generally the ghost of a member of the family who died with some desire unfulfilled, or whose death ceremonies were neglected or improperly performed Married women are supposed to be very liable to possession by the

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spirit of a husband's former wife. Family spirits are quieted by performing special death rites. The chief outside spirits are (males) *Jhand, Jin, Khavas, Shikotar* and *Vir;* and (females) *Cudel, Jhāmpadi, Jogni, Meldi, Pari, Shikotri,* and *Vantri.* Of these female spirits, *Jhampadi, Meldi* and *Shikotri,* are the favourite goddesses of most of the low caste Hindus like Bhangis or Dheds, who avert their evil influence by offerings. The favourite hunts of these spirits are burning grounds, *pipal* or *bābul* trees, wells, and empty houses. When a person is believed to be possessed by a spirit a little cow-dung, with some chillies, mustard, an iron nail, and live charcoal, is placed on a bell-metal plate. Over these articles a brass cup is turned, and over the bottom of the cup a mixture of cowdung and water is poured. The plate is then waved over the head of the sick seven times by a woman. If the cup then sticks to the plate, the spirit is believed to have left the patient and to have taken up its abode in the cup. Charmed threads, supplied by exorcists, are tied to the wrist or to the neck, and Brahmans are engaged to repeat sacred verses. If the spirit is weak, it is frightened by one or more of these processes and leaves the victim; if it is strong, and does not yield, an exorcist is sent for. He is called a *bhuva* and may be a Brahman, Khatri, Rabari, Bharvad, Vaghri, Koli, a Bhil, a Jain Gorji or a Musalman Fakir or Molvi. Exorcists are said to gain their power of scaring spirits by muttering spells, *mantra,* which force spirits to become their servants and to obey their orders. Western education has weakened the belief in evil spirits, though it continues to be strong among backward people.

Omens.

Omens were all along very widely believed in in past times and though belief in them has not completely disappeared even among the educated classes, the condition of modern life have appreciably diminished their regulatory influence on the routine of daily life.

Hindu Sects.

Regarding the religious sects among the Hindus of Broach district and the Rājpiplā sub-division the following details are available in the census returns of 1872 :

Hindu Religious Sects, 1872.

Name of the Sect.			Broach District.	Rajpipla Sub-Division
I. Shaivas	(1) Smarts	..	21,903	8,594
	(2) Lingayats	..	202	2,261
II. Vaishnavas	(3) Vaishnavas	...	8,387	2,261
	(4) Ramanujas	...	72,695	11,208
	(5) Vallabhacaries	...	12,569	107 (Shravaks)
	(6) Svaminarayans	...	3,869	855
	(7) Kabirpanthis	...	12,687	1,650
III. Mixed	(8) Ascetics	...	21,593	373
	(9) Sects undefined	...	119,141	89,577 (Devibhaktas)
	Total	...	273,046	114,625

Details by religious sects are not given in any later census returns. But, as among the Hindus, sons generally follow the faith of their fathers the above table may be said to reflect also their present distribution in Broach district.

Shaivism.

Śaivas, or worshippers of Śiva, worship the deity under the name of Rudra, Śiva, Sadāśiva, Śaṅkara, Śambhu, Mahādeva, Iśvara, Nīlkaṇṭha, etc., in their own houses, as the family god, as also in the temples which are to be found in almost every village, town or city. Rudra is a terrible god in the earlier Ṛgveda hymns, but in the Yajurveda he is several times mentioned by the name of Śiva and Śaṅkara and also Mahādeva. Rudra or Śiva though fierce, is be sought in the Vedas not only to preserve man from calamity, but to bestow his blessings on man and beast, which may account for his euphemistic epithets of Śiva i.e., auspicious, Śaṅkara, i.e., doer of good, Śambhu i.e., origin of good, and Mahādeva i.e., great god. His healing powers are mentioned with special frequency in Vedic literature, and he is praised as the greatest of physicians. Of the Purāṇas, four *viz.*, the Skanda, the Śiva, the Liṅga, and the Bhaviṣya specially favour the cult of Śiva.

Towards the close of the eighth century, Śiva worship was extended and popularised by Śaṅkarācārya. Śivas terrible aspects as *Rudra, Bhairava, Ugra,* and *Aghora* easily adapted him to the religion of fear and propitiation prevalent among the non-Āryan races. He thus becomes the deity of the highest and the lowest castes. Śaṅkaracārya established in India four sects where he established his pupils as *ācāryas* (religious heads) and their successive pupils still occupy the *gādis* (seats). *Śaivas* of Gujarāt generally come under the sway of a *gādi* known as *Śāradā Pīṭh* (throne of learning) situated in Dwārkā. The chief duty of the ruling Śankarācārya (pontiff) is to preach and disseminate the doctrine of the Vedic religion. He is the final authority in religious questions for the followers of Śaivism in Gujarāt. Śaivas use a traverse streak (*tripuṇḍa*) on their forehead as a religious mark. They also put on a *rudrākṣa* (Elaecarpus ganitrus) berry, and use *rudrākṣa* hand rosaries.

In popular conception Śiva is a god whose anger is to be dread ed and whose favour is to be propitiated. His abode is the *Kailāsa* where he dwells with his consort Pārvatī whose other names are Durgā, Kālī, Umā, Bhavānī, etc., and his countless servants (*gaṇās*). He is sometimes represented in sculptures and paintings with five faces, (*Pañcānana*), sometimes with one face and with three eyes. He has a crescent moon on his forehead, a serpent round his neck, and a second necklace of skulls, with numerous other serpents about his person. On the top of his knotted hair he bears the Ganges, the rush of which he intercepted in its descent from Viṣṇu's foot, so that the earth might not be destroyed by the weight of the falling stream. His complexion is sometimes white, from the reflection of the snows of *Kailāsa*, sometimes dark, from his identification with the dark

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destroyer, time (*Kāla*). His throat is blue from the stain of the deadly poison which would have destroyed the world had he not, in compassion for the human race, undertaken to drink it up upon its production from the churning of the ocean. He rides on a white bull, called *Nandī*, stone or plaster images of which are often placed outside his shrines. As he is constantly engaged in battle with mighty demons, he carries a trident (*triśūla*), a bow, and a thunderbolt (*vajra*). He holds in his hands a noose for binding his enemies, and a drum, *ḍamarū*, which he uses as a musical instrument to keep time as he dances. But, though he is thus depicted in sculptures and paintings, in his temples he is worshipped under the impersonal symbol of the phallus or *liṅgam*, for he is supposed to reproduce after destruction, and as such is worshipped as if he were the creator. The *liṅga* or *bāṇa* is of stone, pyramidal in shape, and from three inches to several feet high. The chief of these emblems are called *svayambhū* or self-created and *jyotir* or luminous.

The essential doctrine of Saivism is the existence of a personal deity, the one existent and universal soul without a second or *advaita*, and the unity of the divine or universal soul *paramātmā* with the individual soul or *jīvātmā*. All nature is but a manifestation of the universal soul, takes its origin from that soul, and is eventually absorbed therein. In order to impress this doctrine upon his mind the Shaivait is required by his religion to mutter every now and then, *Sivoham*, that is, 'I am Śiva'. The daily worship is simple and consists of offering *candan* (sandal), water and the leaves of *billi* (Aegle marmelos) to the *liṅga*. On *Sivrātris*, dark fourteenth of each month, and especially on that of *Māgh*, called *Mahā Śivarātri*, the god is invested with a brass or silver mask, and in winter the *liṅga* is decked with refrigerated clarified butter in ornamental shapes called *ghīnā kamal*. In cases of anxiety or of serious illness, as also when the stars foretell an evil planetary trouble, prayers called *Rudri* and *Mṛtunjaya japa* (death conquering prayers) are offered to Siva in his temples. This consists in Brāhmaṇas pouring water over his *liṅga* and reciting the *Rudradhyāya*, or panegyric in honour of *Rudra*. It is recited 11 times in *Rudri*, 121 times in *Laghu-Rudra*, 1331 times in the *Mahā-Rudra*, and 14,641 times in the *Ati-Rudra*.

Vaiṣṇavism.

Viṣṇū, a sun-god in the Ṛgveda, becomes the god of preservation and universal prosperity in the post-vedic period. In post-vedic mythology Viṣṇū's character for preservation is developed in the doctrine of his *avatāras*, incarnations, literally meaning descents to earth, which he assumed for the good of gods and men. Of these Rāma the seventh incarnation and Kṛṣṇa the eighth incarnation being the most popular throughout India formed centres round which two main types of Vaiṣṇava cults have gathered. Of Rāma worshippers the chief are Rāmānujas, Rāmānandis and Rāmasnehis and Kṛṣṇa worshippers, Vallabhācāris, Madhvācāris and Svāminārāyaṇs.

Rāmānuji sect.

With a few followers chiefly among Brāhmaṇas and Vānias, the Rāmānujīs have temples in Baroda, Ahmedabad, Dabhoi, Surat,

Viramgam and other towns. The sect is so called from the name of the founder Rāmānuja, a Tamil Brāhmaṇa saint, who flourished in the twelfth century. Against Shankarācāryā's *advaita* or strict "monism" Rāmānujā set up a theory called *Visiṣṭādvaita* or "qualified monism" maintaining (1) that individual souls are not essentially one with the supreme soul though He is their source, and hence the soul after salvation enters into a relation of perfect heavenly service to Him, and (2) that the supreme is not purely an abstract being. but possesses real qualities of goodness and the like, infinite in degree. The Rāmānujis worship Viṣṇu as Nārāyaṇa and his bride Lakṣmi or Sri. The special marks of a Rāmānuji are a close-shaven moustache, a *tulsi* or sweet basil rosary, and two vertical and slanting lines of white clay on the forehead, a perpendicular red streak for Lakṣmi in the middle with a horizontal white clay lines connecting the three across the root of the nose, the whole, from one to two inches wide, representing Viṣṇu's throne. There are two main divisions of the sect, *Ten-gala* or southern school and *Vada-gala* or northern school which differ chiefly in externals. An important difference of doctrine, caused by different views of the nature of the soul's dependence on Viṣṇu, separates the two parties. The view taken by the Vadagalas is called the "monkey theory". The soul, they say, lays hold of the Supreme Being by its own free will, act and effort, just as the young monkey clings to its mother. The Tengalas hold what is called the "cat-hold theory". The human soul remains helpless until acted on by the Supreme Being, just as the kitten remains helpless until transported by the mother-cat. The two divisions are distinguished by different marks on the forehead, to which they attach great importance. The Vadagalas contend that the mark on the forehead ought to represent the right foot of Viṣṇū, while the Tengalas contend that equal reverence is due to both feet. The Tengalas draw the whole line half down the nose to represent the lotus throne of Viṣṇu. Both divisions agree in branding the emblems of Viṣṇu the disc and conch shell on their breasts, shoulders, and arms. The sect is very strict as regards food, drink, marriage etc. Rāmānuja died in A.D. 1137.

Ramanandi sect.

The Rāmānandis or Rāmāvata sect was founded by Rāmānanda who was born at Prayāg in A.D. 1300. His original name was Rāmadatta. At a very early age he got himself initiated into *sanyāsa* at the hands of Raghavananda the fourth apostalic successor of Rāmānuja. and the head of Sri-maṭha at Benaras. Tradition tells us that Rāmānanda was made a *tridandi sanyāsi* and installed as his successor by Rāghavānand himself. Although to begin with Rāmānanda was a follower of Rāmānuja, he differed from Rāmānujis on the necessity to observe privacy in preparing and taking food. It is said that Rāmānanda having travelled extensively over India returned to one of the monasteries of the sect, where some priest insisted on Rāmānanda eating apart from the rest of the brethren on the ground that in his wanderings he could not possibly have observed the rule of the Rāmānuja sect requiring meals to be strictly private. In resentment

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Rāmānanda founded a new sect and to show his contempt for caste distinctions, freely admitted into it men of all castes, even the lowest. He invariably used the current languages for his preachings, and allowed freedom from caste rules in matters of food, social intercourse etc. "Let no one ask a man's caste or with whom he eats. If a man is devoted to Hari, he becomes Hari's own;" so he preached. This resulted in Dheds, Bhangis, Chamārs becoming followers of this sect, along with Brāhmaṇas, Vānias and artisans.

Having imbibed the inspiration of the *visiṣṭādvaita* (qualified monism) philosophy of Rāmānuja, Rāmānanda pioneered *Bhakti* movement in Northern India. "Bhakti sentiment, according to Rāmānandis, can be expressed and realized through any one of five mental states with their appropriate behaviour patterns. These states are *śṛṅgāra* (erotic) attitude, *sakhya* (friendly) attitude, *vātsalya* (parental) attitude, *dāsya*, (servitude), and *śānta* — attitude of blissfulness."* To illustrate, he placed before the people the pure and chaste theme of Rāma and Sītā, immortalised in charming verse by the great poet Vālmiki. He inculcated the worship of Visnu in the form of Rāma with Sītā and Lakṣmaṇa. The initiatory verse for Rāmānandis is *Śrī Rāma* and the salutation *Jaya Sītā Rāma.* The forehead mark is like that of Rāmānujis made of *gopicandana,* but the red vertical streak is narrower.

Among the disciples of *Rāmānanda* twelve became very famous. The list is interesting as showing his utter disregard for caste in matters of faith. They were: (1) Anantānanda, (2) Sukhānanda, (3) Surāsurānanda, (4) Narhariyānanda, (5) Pipā, (6) Kabir, (7) Bāvānanda, (8) Senā, (9) Dhannā, (10) Rohidāsa, (11) Padmāvati, (12) Surasari. Of these Pipā was a Rajput, Kabir a Musalman weaver, Senā a barber by caste, Dhannā a Jat, and Rohidāsa a currier or cobbler. Padmāvati and Surasari were women and Anantānanda and Sukhānanda were Brāhmins. Various minor sects varying in detail have arisen from the Rāmānandis, of which those known after Kabir, Senā and Rohidāsa are famous. Various branches of the sect known as *Dwāras* are found at present in Punjab, Rajasthan and Uttar Pradesh. A *Dwāra* is known after its founder, and is called *Gādi* after the name of the place of its chief centre. A few of them claim a continuous functioning for five centuries.

Vallabhācāri sect.

The most important system of Vaiṣṇavism now prevalent in Gujarat is perhaps that of *Puṣṭimārga,* the *Sāmba* or *Rudra--sampradāya* of Viṣṇusvāmi altered and propagated by his best known successor of Vallabhācārya. The philosophic doctrine propounded by Viṣṇusvāmi is called *Śuddhādvaita* or pure duality as distinguished from the *Kevalādvaita* of Śaṅkarācārya and *Viśiṭādvaita* of Rāmānuja. It teaches that God, though eternal, is endowed with a celestial form, and all visible phenomena emanate from Him at His will. *Jivātmā,*

*Ghurye, *Indian Sadhus*, p. 198.

the individual human soul, is believed to be a spark from *paramātmā*, the supreme soul, separate in form but identical in essence. Building on this philosophical basis, Vallabha (1479 A.D.), a native of the Telugu country, a great Sanskrit scholar, introduced elements of pleasure and enjoyment in divine worship, rejecting the austerity and hardship of the other sects, and called his cult *Puṣṭimārga* or creed of spiritual nourishment. Among other articles of his new creed, Vallabha taught that privation formed no part of sanctity, and prescribed that it was the duty of teachers and devotees to worship the Deity, clothing him in goodly raiment and presenting him with choice food.

Vallabhācārya found many adherents especially among the Vania, Kanbi and other middle classes in Gujarāt. He is said to have distributed among his disciples many images of Sri Kṛṣṇa Bhagavān, which are still held in great reverence. Vallabha married and enjoined marriage and wordly life to his successors who are now known as Gosāiji Mahārāj or Gosaiji Vallabhakul. There are seven seats or *gādis* of this sect each of which is presided over by the lineal descendants of the founder. They are at Ahmedabad and Surat in Gujarat, Gokul, Mathura, and Kankroli in the Uttar Pradesh, and Kotah and Nathadwārā in Rajasthān. There are subordinate establishments in Bombay, Baroda, and most of the larger towns, where they are called *haveli* or palace. Both mental and physical worship are prescribed for the followers of this creed. Mentally the image of Kṛṣṇa is to be imagined as existing before the mind's eye and to be worshipped without rites or ceremonies. Physically the actual human image of Kṛṣṇa is to be worshipped with all pomp and ceremony. In their *mandirs*, temples which are built like ordinary houses, without porch or spire, images of Sri Kṛṣṇa in various form are set on raised platforms and homage is paid by devotees at fixed hours every day. On holidays, the image is profusely decorated, seated on a richly carved dais or swung in fancy cradles of glass, ivory, or wood decked with flowers. Seven daily services or *darsans* are held. Thousands of devotees, males and females, flock to the Gosāiji temples and there are many who do not take their food if they have not been able to get a glimpse, *jhānkhi*, of the Thākorji. The first *darsan* is called *maṅgalā* and takes place at about six or half past six in the morning when the image is shown as rising from bed. The rest are :—Sṛngār at 8 a.m. when the image is richly attired; (3) *rājabhoga* at noon when the image is shown as taking a meal after returning from cattle tending; (4) *utthāpana* at 3 in the afternoon, when the image is shown as rising from repose; (5) *bhogāsana* at 4 p.m., the afternoon luncheon; (6) *sandhyā* or *ārati* at about sun-down: and (7) *shayan* or repose for the night ofter lamp light. Initiation of a novice begins in childhood. The first instruction begins between the second and fifth year. The novice is taken to the Mahārāj who repeats the formula *Śri Kṛṣṇa Śaraṇam mama*, *i.e.*, Sṛi Kṛṣṇa is my refuge. After the child is made to repeat the initiatory prayer, the Mahārāj passes

round his neck a basil *(tulsi) kanthī* or rosary. A later and more important initiation takes place after the eleventh or twelfth year and at or before marriage for females. After the second initiation, the votary is supposed to consecrate his *tan* (body), *man* (mind), and *dhan* (property) to the deity. The ceremony is called ***Brahma sambandha*** or union with the Supreme Being. In practice, this principle in the past sometime degenerated into great depravity, the worshipper regarding the Gosāiji Mahārājas as incarnations of Krṣṇa, paid to the Mahārājas themselves the abject service which they believed to be due to Krṣṇa including sometimes the *jus primae noctis* (enjoyment of the first night). The Vallabhācāri browmark consists of two red perpendicular lines converging in a semi-circle at the root of the nose. Though the sect has no *sādhus*, some of the followers take the *samarpan* or dedicatory vow and do not eat food cooked for them by others. They are called *marjādi*. They do not ordinarily eat in metal vessels but use leaf-plates and obtain their drinking water in canvas covered receptacles

Swāminārāyan sect

The epicurean principles of the Vallabhācāri sect led to the reform of the Vaisṇava church early in the nineteenth century by Sahajānand Swāmi, a man of deep religious feelings and high morality whose sect, known as the Swāminārāyan sect, is at present of great importance in Gujarāt and has a large number of followers among many Hindu communities. Sahajānanda was born in A. D. 1780 at the village of Chhapai, eight miles from Ayodhyā in the Uttar Pradesh. His parents dying when he was 11 years old, he became a recluse and committed the *Bhagwad Gitā* and *Viṣṇu Sahasra Nāma* to memory. In 1799 he began to associate with a body of Rāmānandi *sādhus* and in 1800 was initiated with the name of Sahajānanda. He began to preach the *Visiṣtādvaita* faith of Rāmānuja with such effect that the then head of the Rāmānuja body appointed him his successor. During his rambles, he visited Gujarāt several times, and being offended at some of the practices of the Vallabhācāri sect, preached chastity and purity of soul as the key-note of religion. By his preaching and his own exemplary life, he succeeded in making many converts, chiefly among the lower classes. When he knew that he had gained sufficient ground, he boldly asserted that he himself was an incarnation of Krṣṇa, born to restore the Vaiṣṇava faith to its former purity. He died in 1830 at Gadhada in Kathiawad where his *pādukās*, footmarks, are worshipped. Being a celibate he adopted two of his nephews, one of whom was installed at Ahmedabad and the other at Vadtal. Their descendents are the hereditary *Ācāryas* of the sect. Though the *Ācāryaship* is hereditary it requires confirmation by a council of four *Brahmacāris*, four *Sādhus*, and four laymen, *satasangis* before accession. If the *Ācārya* does not behave properly he may at any time be deposed. Such a course had to be taken at the Vadtal *gādi* about forty years ago, for the first time in the history of the sect. The tenets of the Swāminārāyan sect are embodied in a book called *Vacanāmṛta*, nectar of precepts, which is a treatise on all branches of religious

philosophy. Their authoritative works are the *Vedās;* the *Vedānta Sutra* of Vyāsa, as interpreted by Rāmānuja; the *Bhagwat Purāṇa;* three chapters of Mahābhārat, *viz., Viṣṇu Sahasra Nāma, Bhagwat Gita* and *Vidur Niti;* and *Vāsudeo Māhātma,* a chapter of *Skanda Purāṇa.* The book which is usually read by the followers of the sect in their daily prayers is called *Sikṣā-Patrikā,* or book of precepts embodying practical ethics. It prohibits the destruction of animal life, promiscuous intercourse with the other sex, use of animal food and intoxicating drinks and drugs, theft and robbery, blasphemy, false accusation and caste pollution. The ceremony of initiation begins with the novice offering a palmful of water near the feet of *Ācārya* saying "I give over to Swāminarayan my mind, body, wealth and sins of (all) births (*man, tan, dhan ane janamnā pāp*)." He is then given the sacred formula *Śri Kṛṣṇa tvam gatir mama,* ("Śri Kṛṣṇa thou art my refuge)." The novice then pays at least half a ruppe to the *Ācārya.* Ordinarily every follower is expected to present to his *Ācārya* a twentieth of his income, while the more devout are expected to pay a tenth. Before eating he is enjoined to worship the image of Sahajānanda Swāmi which he keeps in his house along with the *Sikṣa Patrikā.* He also worships his foot-prints on a piece of cloth and tells his beads repeating his name. There is a Swāminārāyan temple in almost every important village which is attended either in the morning or in the evening, or at both times, by all the followers. There are separate passages in the temple for women and also separate reading and preaching halls for them. The distinguishing mark which followers of the sect make on their forehead consists in a vertical streak of *gopicandana* clay or sandal with a round red powder mark in the middle. They also wear a necklace of basil beads.

HOLIDAYS

Hindus of Gujarāt generally follow the Vikram *Saṁvat* (era) which preceds the Christian Era by fifty-six years and in many parts of the country, the year which begins with the month of *Kārtika* is divided into three seasons namely *Siyālo* or cold season consisting of the months of *Kārtika, Māgsir, Posh, Māgh; Unhālo* or hot season extending over the months of *Phālgun, Caitra, Vaisākha and Jeth,* and *Comāsu* or monsoon comprising the months of *Aṣādh, Śrāvaṇa, Bhādrapad and Āso.*

The month is divided into two fortnights. *kṛṣna pakṣa* (*vadya pakṣa*), the dark fortnight when the moon is waning, and *sukla pakṣa* (*suddha pakṣa*), the bright fortnight, when the moon is waxing. Dates are reckoned by the day of the fortnight of each month. According to the *Pūrṇimānta* method of reckoning, the month ends at *Pūrṇimā* or full moon; according to the *Āmānta* system, the month ends at *amāvāsyā* or new moon. The latter system is generally followed in Broach.

Almost in every month of the year, Hindus have a holiday or two which they observe with a religious sentiment. These holidays get a mention in Hindus almanacs or *pañcāṅgas,* as they are called

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but in their observance a person is led by the tradition of his family and caste and the local usages. Many of these holidays are celebrated with festivity and could be called festivals. These holidays, as they derive significance from many factors could be classified as (1) mythological including brithdays (*jayanti*) of gods and heroes, as well as holidays in celebration of events recorded in the Epics and Purāṇas (2) astronomical *i.e.* marking the changes of the moon or of the seasons, eclipses, and other natural phenomena; a few have more or less (3) a sectarian emphasis, and the rest are (4) peculiar to certain castes or are observed by family tradition.

The following are the important religious holidays widely observed by the Hindu population of Broach district.

Diwāli.

The *Divāli* festival marks an important holiday celebrations of the Hindus. It lasts from the 13th day of the second half of Āsvina to the 2nd of Kārtik. According to the Śāstras, *Divāḷi* holidays consist of three days namely the 13th, 14th and 15th of the second half of Āsvina, but by custom the two succeeding days namely ***Balipratipadā*** and *Yamadvitiyā* get added to them making the whole a five days festivity each day having its separate significance.

The first day of the festival which falls on Āso vad. 13th is known as *Dhanaterasa*. In the morning after ablutions the householder carefully cleanses a few silver coins, places them on a low wooden stool and worships them with full sixteen acts of worship. Shepherds, cowherds and others, on this day adorn the animals they tend and worship them. Fishermen in like manner colour and worship their nets. In the evening the people of the town or village assemble outside the gate to see the cowherd drive their flocks and cattle from the fields at full gallop. Houses are illuminated in the evening with *kodyū* (earthen lamps) lighted in rows all about the house.

The next day *i.e.* the Āso vad. 14th which is known as *Kāli Coudas* is dedicated to the worship of Hanumān and the night is considered as a favorable time for the practice of magical rites. Baths are taken before sunrise, to mark the death of the demon Narkāsur at the hands of Viṣṇu. The illumination is repeated this night also.

Laxmi-pujana.

On the 30th or last day of the month which is also last day of the Saṁvat year, Baniyas hold a great pūjā known as *Laxmi-pūjan* or *Vahi-pūjan*. Bankers and merchants spend the four last days of the Gujarāt Hindu year in setting their accounts and while the old accounts are being balanced, a set of new books has been bought, and after four o'clock in the afternoon of the last day of the year, Brāhmaṇa priests are asked to the Office where the banker, the clerks, and many of his friends meet to worship the books. The ceremony is called *vahī-pūjan* (books-worship). The new books are piled on wooden stool generally in front of Lakṣmī, the goddess of

wealth, lighted lamps are placed round them, and flowers are strewn on the books. The priest repeats a prayer for the favour of the goddess on the next year's business, and, dipping his fingers in saffron or *kaṇku*, makes round marks on the first page of each books. The worship comes to a close by writting on the wall of the room auspicious words like *Śri Gaṇeśāyanamah, Lakṣmimātāni madat, Bhaṇḍār bharpūr* 'Salutation to the Great *Gaṇeśa*, and Mother Lakṣmī help us, overflow our treasure chests.' Presents are distributed to Brāhmaṇas, and gifts made to dependents and friends.

Besatu-Varsha.

On the first day of the month of Kārtika, which is also the first of the Saṁvat year, is celebrated as the New year's Day *(Bestū Varṣa)* by the Gujarātis. The Hindus build before the gods an *annakūṭa*, a storehouse of every kind of food. Dishes prepared out of the new food crop of the year are offered ceremonially to *Śri Dākorji*. It is believed that before the birth of Kṛṣṇa, the cowherds of Gokul used to worship Indra on this day. On one occasion Indra got annoyed and showered heavy rain. Kṛṣṇa therefore stopped Indra's worship and substituted that of mount Govardhan. It has since been called the *Annakot* day and in memory of the incident Hindus erect a model of Govardhan mountain and worship it placing upon it a flag, a few sprigs of trees, and some flowers. Cows and bulls are decorated, worshipped and well-fed on this day. The trading classes open new account books on this day, worship them under the name of Saraswati with all the sixteen acts of devotion, sprinkle the first leaf with red preparation of turmeric and make on it a few fictitious entries for good luck. Gambling is considered auspicious on this day because of a special blessing put by goddess Pārvati on this day.

Tulasivivāha

On the 11th day of the bright half of Kārtika or as may be the custom on an auspicious day between Kārtika 11th to 15th, high caste Hindus, particularly Vaiṣṇavas celebrate every year the marriage between the image of Viṣṇu (god Kṛṣṇa) and Tulsi, the plant *Ocimum sanctum* or the holy basil. When the ceremony is to be on a small scale the image of Viṣṇu is richly dressed, and is taken in the evening to the basil plant over which a booth of sugarcane cuttings is raised. The family priest officiates at the marriage ceremony which is conducted by the head of the family and his wife. Marriage verses are chanted and the plant and the image are united by the marriage garland. The plant is covered with a women's robe and an iron ring and wristlet are tied to one of its branches. Some women fast for three days after the eleventh, keep a lamp continuously burning, and on the fourth day break their fast. The night on the fourth day is kept as a vigil or wake. Some well-to-do pious and childless persons celebrate this marriage on a grand scale. With this marriage of Viṣṇu with Tulsi begins the yearly marriage season for the Hindus.

Holi.

The festival of *Holi* takes place on the full moon of Phālgun, and is a regular saturnalia amoung the lower orders. It represents the passing of the sun into the Vernal Equinox. On this day fire is lit in houses and the crossing of four roads or outside the village. Before the

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fire is lit a hole is dug or an earthen platform is raised near the spot and the hole or platform is strewn with red powder and flowers. The main roads are festooned with mango or *āsopālav* leaves and miniature paper flags. In the evening fuel gathered from the street people or filched from fuel-carts passing through the street is piled over the spot. In the afternoon the street people assemble, indulge in the foulest abuse and in mock fights, and in the evening or at midnight one of the street people or in villages the headman with the help of a Brāhmaṇa offers sandal-paste and flowers to the pile which is then lighted with a torch, sometimes by a Vagri. When the whole is ablaze, ghee, fried *juvar*, and gram, and several dry dung-cakes strung together are thrown in the fire. The worshipper then walks seven times round the fire, pouring water as he walks. At the end of the seventh round he offers a cocoanut. The street or village people then walk seven times round the fire and besides fried grain offer it the unopened leaves and lopping of the mango *moha* and *shami* trees. Newly married pairs, mothers with children, and all who want to guard themselves against fever and sore-eyes worship the *Holi* fire for which they have to keep a day-long fast.

The people throw red powder at each other, and play outdoor games all night. Next morning, which is called *Dhuleti* (from *dhul*, dust), people of the lower orders throw dust at one another and all sorts of obscene and ugly expressions are vociferated in the streets.

Akhātrija.

The third day of the month of Vaishākh is called *Akṣayya tritiyā* (Akhātrija) 'the undecaying third', and is supposed to be the day on which the storms of the monsoon commence, and the sea becomes unfit for navigation. It marks the beginning of the agricultural year in Gujarāt and is considered a day of auspicious begining for agricultural operations. It is a great day of omens. It is a custom at places for villagers to build outside the village on the evening of the previous day a model town of corn stored with little heaps of various grains and commodities. On the morning of *Akhātrija* the villagers examine the model and make forecast regarding the condition of crops and commodities according as the small heaps are attacked by ants or other vermines or are left unmolested.

Divāso or Dipa-pūjā. (lamp-day)

Distinct from Divāli, which is a well-known period of annual festivities, is another day called *Divāso* or *Dipa-amāvāsyā*, or the last day of Āṣādha devoted to the worship of family lamps, or *dipas*. All the lamps in the house are artistically arranged within an auspicious drawing on the floor and devoutly worshipped by the married ladies of the household. Sweets are prepared as *naivedya* or offerings, to the God of Light, and served at the meal. There is a folklore story attached with the adage that Lamp bring wealth,' *Dipam Lakṣmi-karam.*

Nāgpañcami.

On the fifth of the bright (in South Gujarāt) or dark (in North Gujarāt) half of Srāvaṇa comes the festival of *Nāgpañcami* i.e. the Cobra's Fifth. It is not celebrated as a regular festival in Gujarāt.

On that day the head woman, if not all the women of the family, worships the cobra or its image. The sight of a live cobra is considered lucky that day, and in some towns living cobras are taken by snake charmers from house to house to be worshipped and fed on milk. When they cannot get a live cobra the women content themselves by offering jasmin flowers, milk, and cotton thread to a silver cobra or a painted cobra on a house wall or on a foot-stool. A centipede and a scorpion are also sometimes painted near the cobra and flowers are offered to them. After worship the women bows to the cobra's image saying 'My children are your children, therefore pray do not frighten them.' On that day the women of the family particularly the head, eat nothing that has been cut or pounded. The only food that is taken is a mixture of unpounded rice and split pulse or the flour of *bajri* or rice mixed with sugar and *ghee*.

Radhaṇa-chaṭhtha

The next day *i.e.*, the bright or dark sixth of Srāvaṇa is observed as *Rāndhaṇachaṭhṭha*, the Cooking Sixth and is devoted to the preparation of food for the day following which is sacred to *Sitalā Mātā* or the small-pox goddess, and is known as *Sitalā Sātem*. Small-pox is believed to be caused by heat and the goddess is supposed to wander about on that day among the ovens of the householders on which account artificial heat is as much as possible avoided on that day and fire is not lighted in the ovens for fear of annoying the goddess. In books the goddess who is of Chandal or impure caste is shown as naked seated on a donkey, wearing a broken winnowing fan on her head, with the pad of a water vessel in one hand and a besom in the other. For worship the goddess is shown by a clay female image seated on a donkey, or by a stone or by a *Kevḍā* (Pandanus ordatissimus) plant. On *Sitalā Sātem* the female head, if not all the members of the family, bathes with cold water and goes to visit small-pox goddess under a *pipal* (Ficus religious) tree on the river bank. She offers the goddess milk, pepper, betelnut, dry-dates, cocoa-kernel, a few Indian millet grains, flowers, and the leaves of the *kevḍā* (pandanus) and the *ghalodi* creeper. A piece of silk cloth called *ghāṭaḍī* or a cotton thread is also wrapped round the image. Five, seven or thirteen boys or girls are fed on stale food (cooked the previous day) near the goddess if any member of the family has suffered from small-pox in the course of the year. The female head of the family partakes only of the cold meal that day. After worshipping the goddess, the women return home, the kitchen hearth is neatly cowdunged, a whitewash cross is made on it, and mango leaves are offered to it.

Shrāvna-Purnimā

The Srāvaṇa full moon day is observed as a holiday by all classes of Hindus. The day is known as the day of *rakṣābandhana*, as, this day sisters tie *rākhī*, or amulet, made principally of silk threads, and silver wire, gold wire, pearls, jewels and gold beads, according to means, round the right wrist of brothers as a charm protecting them from evil during the ensuing year. Hence the name *rākhī* or *rākhaḍī*, from *rakṣa* — to protect. The brothers in return make money presents to their sisters. These threads may be kept on the wrists till

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Dasarā Day when they are untied and thrown on the *shāmi* (prosopts spicigara) tree.

On this day all the Brāhmānic classes entitled to wear *janoī* i.e. the sacred thread change their thread after worshipping Viṣṇu and offering libations of water to deceased ancestors. Technically the ceremony which consists of several rites is known as *śrāvaṇī*. As the *śāstras* prescribe, all *Bramhacāris* (*vedic* students) and *grahasthāśramıs* (house-holders) should gather in the village temple and should perform the ceremony under the guidance of *upādhyāya* (priest) with recitation of *mantras* (texts). The rites in order are : (1) sipping of *pañcagavya* (five gifts of the cow) for the purification of the body, (2) preparation of the *homa* (sacred fire) and offering it oblations of *caru* (cooked rice); (3) bathing and seeing the stars of Saptarsi and Arundhati; (4) rekindling the sacred fire and offering it oblation of curds and *saktu*; (5) then bowing to the *guru* and elders and presenting them with *yajnopavita* (sacred thread), reciting *gāyatri* ten times over a new sacred thread and donning it after discarding the old one. The ceremony ends after performing; (6) *tarpana i.e.*, offering libations of water sesamum to the *pitrs* (dead ancestors).

The day is also known as *Variyeli Pūnam* or *Baleva* or Cocoanut Day as particularly on seacoast towns, this day, merchants and traders, offer worship and pray for the safety to their ships and to appease the rough waters of the monsoon sea, throw a cocoanut to please Varuna Dev (Uranus) who rules waters. Sailing vessels are first put to the sea on this day and Khārvās, Machis, and seafaring classes worship the sea by pouring milk and liquor and by throwing flowers and cocoanuts into the sea. The day is called *Baḷeva* or Bali's day to mark the anniversary of Bali Rājā, a mythical king to whom Viṣṇu in his Dwarf (Vāman) incarnation gave the kingdom of Indra.

Janmāṣṭamī.

On the eighth of the second half of Srāvaṇa comes a festival in honour of Kṛṣṇa's birthday which is known as *Gokulāṣṭamī* or *Janmāṣṭamī*. Kṛṣṇa of course is the accepted eighth incarnation of Viṣṇu. He killed Kaṁsa his maternal uncle and helped the Pandavas in their struggles with their cousins. It is the celebration of his birth that gives its name to the *Janmāṣṭamī* day from *Janma*, birth, *aṣṭamī*, the eight. In some families this ceremony begins on the first day of the dark half of Srāvaṇa and lasts for nine days. *Kathās* or *Kīrtans* consisting of devotional meetings in which recitations from Mahābhārata intermixed with interpretations, traditions, and funny stories are held during the eight nights. On the eighth night, the birth ceremony is celebrated and on the ninth day a row of unglazed ceramic pots containing sour milk is hung from a pole supported by two uprights, and broken. Devoted young and old people dance below them in supposed imitation of the pranks of Kṛṣṇa during his stay among the cowherds. This ends the ceremony.

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Noratā and Daśerā

The *Noratā* or Navarātra (Festival of Nine Nights) which begins from the first day of *Āśvina* is sacred to Devi, the goddess, whose ten manifestations and several exploits are described in the Devi *Mahātmya* of *Markandeya Purāṇ*. It extends over nine nights and is immediately followed by the *Daśerā* so called from *daśa*, ten and *ashara*, day. Some consider the Daśerā a ten-day festival in honour of the goddess Durgā and call it *Durgotsava*. On the first of these is performed the ceremony of *ghaṭasthāpanā*, the invocation of the goddess to be present in the *ghaṭa* (pot). A surface of the wall in the house is whitened and the trident, the emblem of the goddess is painted on it in vermilion. In front of it a heap of earth is built and sown with wheat and barley. On the top of the heap is placed a brass or silver pot filled with water. A silver or copper coin and betel-nut are placed inside the pot and the mouth is covered with mango-leaves and a coconut. The goddess is then 'invited' with due acts of worship to occupy her temple and is daily worshipped for nine days. Throughout the period a Brāhmin priest reads *Saptashati* hymns in praise of the goddess. An earthen vessel, pierced with numerous holes, and containing a light, is placed near the trident. A lamp, fed with *ghee* and placed upon a stand, is kept burning night and day before the goddess during the nine days of *Nortā*. On the night of the ninth day a *homa* (sacred fire) is kindled in the temples of the goddess, and is supplied with offerings of *ghee*, sesamum, barley and sacred *samidhas*. The women perform the *garbā* or religious dance singing songs in praise of the goddess. On the tenth *Daśrā* day the mound of earth in which the wheat and barley has by this time sprouted is consigned to a river or tank. In country places, in some open spot in the village, a tree to which lamps are hung is planted; a tall lamp is kept on a pedestal and people walk or dance round the tree clapping their hands and singing songs. The lamp and the tree are called *Garbo*, *Garbee* and hence the dance is also called *Garbo*.

The day immediately succeeding the *Noratā* is *Daśerā*, a festival which commemorates the destruction by Rāma of Rāvaṇa the demon-king of Ceylon, and the entrance of the Paṇdavas into Virātanagar after defeating the Kauravas—events described in the two great epic-poems of the Hindus. On the morning of Daśerā day Hindu take an early bath and worship their household gods, and visit the temple of 'Mātā' or Goddess. The Daśerā day is considered highly auspicious for the undertaking of any new work or business; and children who are commencing their studies generally attend school for the first time on this day.

Māṇekathari Pūnem.

The full-moon day of Āso is kept as a holiday by all high caste Hindus and is known as *Māṇekathari* or *Śarada* or *Kojāgari Pūnem*. That day supper is taken in open moonlight and as the rice crop is reaped before this time, pounded rice and milk, after they are offered to the moon, form the chief articles of the supper. The moon is the nearest to the earth that night and the moon light is peculiarly cool

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and refreshing. If a rain-drop on this night falls into the mouth of an oyster it is believed to turn into a pearl and hence the day is called *Maṇekathari Pūnem* or the pearl-making full-moon. People enjoy the night by holding singing parties, playing at *atāpātā* or having the *garba* dance.

GAMES AND RECREATION.

A NUMBER OF FORMS OF PHYSICAL ACTIVITY, such as games, sports and amusements are traditionally known to the people. Of these, those that are still popular in the region are mentioned below, with a brief description of their distinctive characteristics.

In the early play activities of children could be marked a number of games of the "imitative" or "make believe" type, wherein various *roles* like that of a cartman, horse-driver, engine-driver, music-player, and palanquin-bearer are enacted with fidelity to real life. *Ghoḍo-ghodo* (horse), *gāḍi-gāḍi* (cart), *āg-gāḍi* (railway), *pālkhi* (palanquin) are games of the sort played with no set rules but with a good team spirit, every player having a part to perform. *Ghar-ghar* is the game of house-keeping often played enthusiastically by girls with secondary roles given to boys. "Doll's marriage" *(Dhinglinu-lagan)* may form a part of *Ghar-ghar* or be played as a game by itself when planned on a grand scale. *Cakkar Ghumār* is a game of whirls which children in imitation of each other start playing by going round and round oneself till the quaint sensation of giddiness sets in.

In games of more or less organised types, the method of "counting out" (*pūkawū*) and choosing players is by itself an interesting process. One player in the group, generally the leader, does the "counting out". He repeats a rhyme or jingle, touches one player on the chest or head for each accent of the "formula", always beginning from himself and then touching the one on the left and so on all around the group in a regular order. The player on whom falls the last accent is "out", that is, he is eliminated from succeeding counts. The procedure is repeated until one player is left out, who becomes the "It". The toss-up or *lili-suki* (wet and dry) is a very simple and well-known method of deciding the "It". Another method is as follows: Out of the group of players three at a time simultaneously raise their hands and let fall their palms in a clap. The one who joins his palms unlike the rest is replaced by another player. This is repeated till the "It" is decided.

Minor games.

Pakaḍ-Dāv (ordinary tag): The players scatter over the playing area and one player chosen as the "It" chases the rest in an attempt to touch one. Any player tagged by the "It" becomes "It" and the old "It" joins the runners. The players add to the zest of the game by venturing as close as possible to the "It" and taunting him with their proximity and suddenly dodging away. A number of variations occur in the tag games.

Chapā-Tāḷi is a tag game with the restriction that the "It" cannot touch any player that squats and the player who squats cannot get up unless touched by some other player who is on his feet.

Āndhḷi-Dāv (blind man's bluff) : One player is chosen to be blindfolded and stands in the centre. Others encircle him. The blind man tries to catch any, and when a player is caught the turn is on him.

Santā-Kukḍī (hide and seek) : There must be some hiding places in the playing area. The "It" is chosen and he is blindfolded. The players run and hide, and one of them signals with a shout to say that they are all hidden. On this, the "It" unfolds his eyes and starts searching the hidden players who rush to the spot and touch an object previously agreed on before the "It" can touch them. The player touched by the "It" before he touches the object becomes the next "It".

Vāgha-Bakari (the tiger and the goat) : All players but one become goats and file behind the leader who becomes the *Bharvāḍ* (shepherd). Each player holds the one in front by the waist. The extra player, who is *vāgha* (tiger), moves from side to side in front of the shepherd and tries to touch any one of the goats, the shepherd protecting them by moving himself as the tiger moves. The goat touched by the tiger becomes the new tiger and the old one joins the goats.

Ṭopi-Dāv : Players sit in a circle facing in, and the "It" runs round the circle with a Korḍā (knotted kerchief) or a cap which he places unnoticed behind one of the players. If the player is alert, he immediately picks up the cap or *korḍā* and becomes the "It" and runs round the circle to place the cap or *korḍā* behind some other player. If the "It" completes one round and reaches behind the player without the latter noticing the cap or *korḍā*, he picks up the cap or *korḍā* and with it beats and chases the player till he takes one round and resumes his seat. In that case, the same "It" continues to run round and keep the cap or *korḍā* behind some other player.

Chūṭi-Daḍī or Mār-Daḍī : A soft ball either of rags or rubber is tossed up in the air for all to catch and the player who succeeds tries to hit with the ball any other player who tries to dodge. The game can continue indefinitely, the players running about either to get the ball or to avoid being hit by it.

Dahi-no-Ghoḍo : It is also a tag game played like *chapā-tāli*. The "It" closes his eyes and hides his face in the lap of another player while the other players hide themselves. This player then says, "*Ḍahi-no-ghoḍo, ramto-jamto, pāṇi-pito, chūṭṭo*". The "It" then tries to seek out the hidden players and tries to tag one of them. The one who is tagged first becomes the new "It" and the game continues.

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Lakde-ki-Dhum-Dhum : In this game also the players except the "It" stand touching a wooden post or pillar. Each player may find one post or pillar for himself or more than one player may touch a wooden post. They go on running and exchanging places shouting, "*Lakde-ki-dhum-dhedia*". The "It" tries to tag any player who is not touching any wooden post. If the "It" succeeds in tagging him before he touches a wooden post the tagged player becomes the new "It" and the game continues.

Calak-Calāṇū: This is a game played by girls. Four girls stand in four corners in an enclosed space. The fifth girl who acts as the "It" goes to each of the girls standing in the corners and enquires whether she is welcome in her corner. The girls so requested points out some other corner and says, "*Bāi pele gher ānā*". Thereupon the "It" runs to the corner pointed out. In the meantime the other girls try to exchange their corners. The "It" tries to tag one of the girls while they are exchanging corners. The girl tagged before reaching a corner becomes the new "It".

Many variations of the tag games are now played in schools which are very popular among children (both boys and girls).

Rope-skipping : This is an activity usually indulged in by girls. A girl holds a small rope in front of her body holding the two ends one in each hand. While the girl skips she tries to pass the rope in a circular fashion round the body first passing it in front, underneath both feet, and then pulling it backwards and overhead and then bringing it once again in front. The movements of the feet and the rope are continuous and the game lasts so long as there is synchronism in the movements of the rope and the feet. The game involves great skill and muscle co-ordination. There are many variations of this game.

Nisarṇī or Siḍī : (Ladder or "Hop Scotch") : Games of hopping and jumping through a diagram and playing a stone (puck) through it are pretty universal. The diagram which is outlined with a chalk on a pavement or with a stick on the ground differs regionally. The traditional game is played with a *thikari* (flat stone). The play consists of hopping or jumping into different sections of the diagram and out again in a prescribed manner and order, with or without playing the stone (puck). In all hopping games it is a miss to change the hopping foot.

Child-games

Cāndā-Poli : This game is meant for very small children. The mother or the elderly sister holds one palm of the child and circles her index finger over it saying "*Cāndā-poli*, *ghi-ma boli, sau chokrā-ne kākḍo-kori, Mayi-te-ben-ne, ghimā boli, akhi-poli, appā.*" She then carries the palm of the child to its mouth and the game is repeated.

Gāya-gāya is also a game meant for very small children. The mother or the elderly sister holds each finger of the child and in turn says, "This is my '*gāya*'; this is 'brother's *gāya*'; this is 'sister's *gāya*'";

and finally she asks, "Where is the 'calf'?" and points at the child. Small children enjoy such games very much and they are repeated again and again.

Sedentary games.

Miṇḍā-cokḍī : Of the sedentary games played by children one known as *Miṇḍā-cokḍī* (naughts and crosses) is very popular. Two contesting players take turns in making a naught or a cross in one of the nine places provided by the diagram, the object being to get three naughts or three crosses in a row. This row may be either vertical, horizontal or diagonal. Score is kept of the games won by each player and of draws.

Pebble Toss or Kukḍī Dāv : This is a sedentary game girls are very fond of playing it. Round pebbles or stones, or *tamarind* seeds from five to any convenient odd number are selected and scattered upon the ground by a single movement of the right hand. Of the scattered pebbles, one is selected for tossing. After tossing one pebble, while it is in the air, one of the others is picked up and held in the palm of the hand, and the tossed one is caught in the same hand. In a similar way, pebbles are picked up by twos, threes, fours and so on till all are picked up all at once. The further skill lies in making various movements of the hands while the tossed up pebbles is in the air. This requires great co-ordination of the hand and eye movements. A usual variant in the game is to hold the pebbles in the hand, toss them all and catch as many as possible of the pebbles on the back of the hand; again toss the pebbles from the back of the hand and catch all in the palm. If any are dropped it is a miss and the turn is lost.

Major Games.

A number of major games, both of Western and Indian types, are played by the people. Characteristically, Indian major games require small playing area and practically no equipment. Of the Indian major games, the well-known are : (1)*Hu-tū-tū*, (2) *kho-kho*, (3) *Circle kho-kho*, (4) *Laṅgaḍī*, (5) *Āṭā-pāṭā*. (6) *Gilli-daṇḍā*, and (7) *Sāt-thikri*.*

Hu-tu-tu.

Hu-tu-tu is an outdoor game contested by two teams of nine players each, within a rectangular field of 40′ x 30′ divided by a central line into two equal halves. Eight feet away from the central line on both its sides are two parallel lines or baulk lines crossing the entire width of the field. Two lobbies each 3′ wide run along with lengthwise sides.

Each team alternately sends a raider into the opponents' court to tag or touch the antis (opposite players). The game starts with the raider crossing the central line to enter the opponents (antis) court, giving out a continuous "hu-tu-tu" without taking fresh breath.

*These games used to be played popularly but irregularly all over the country. Standardised forms were given to them by institutions like the Gujarat Vyāyām Pracārak Manḍal, which have been adopted in the descriptions.

He tries to tag as many of the antis he can without losing breath in the opponents' court. The antis struggle to detain the raider until he losses breath while he is in their court. If they succeed, the raider is out, but if the raider successfully struggles his way to his court without losing breath, all the antis that were in touch with him during the struggle are put out.

Kho-kho.

Kho-kho is a game of chase played between two contesting teams, each of nine players. There is a rectangular play field of 101′ × 51′ with a centrally located lengthwise strip of 81′ × 1′ with two wooden posts, each four feet high, fixed at two ends. By toss the teams decide to be the chasers or the runners. Eight of the chasers sit in a row on the mid strip between the posts equidistantly and with no consecutive of them facing the same direction ; the ninth player is an active chaser. At a time three runners get into the fair field to play, and, when they are out, the next group of three immediately enters the field. The active chaser moves from post to post along with the lengthwise strip in chase of the runner whom he tries to tag. While chasing he can give a *kho* signal by a touch of hand on the backside of any of the sitting chaser and make the latter an active chaser and himself sit in the latter's place. If *khos* are given in quick succession it becomes difficult for a runner to escape being tagged. A tagged runner is out.

Langadi.

Laṅgaḍi : For a long time this game was being played by boys and girls like an ordinary tag game, only with the change that the "It" instead of running used to hop while tagging the other players. Gujarāt Vyāyām Pracārak Mandal, Ahmedabad, framed rules and regulations for the game and gave it a standardized form. Two contesting teams, each of nine players, by toss decide who are to be the defenders or the attackers. The game is played in a circular field of 15 to 20 feet in radius according to the age or height of the players. One player from the attacking side enteres the field hopping through a marked entrance and tries to touch and put out the defenders who run or dodge within the boundary. Only three defenders enter the field at a time. The hopping chaser must not, while in the field, touch the ground with any part of the body other than the hopping foot. The game consists of two innings on each side and each inning is of seven minute's duration.

Gilli-dāṇḍā.

Gilli-Daṅḍā : The players are divided into two teams of nine each. The players in one of the teams scatter over the large playing field 650 ft. by 450 ft. The choice to play or field is decided by a toss. A daṇḍā of solid wood 2 ft. 3 inches long and a *gilli* of the same wood 2 to 3 inches thick and tapering at both ends are used in the play. The fielders stand in front of the *bagī* (a small pit dug in the ground) and one of the players pitches the *gilli* kept horizontally over the *bagi* with the help of the *daṇḍā*. The player is out if the *gilli* is (i) caught of the fly (ii) if the *gilli* thrown by the fielders, strikes *daṇḍā* placed horizontally on the *bagī* or (iii) if any one from

the fielding side is able to jump the distance between the pitching place of the *gilli* and the *bagi*. If the player is not out under those conditions he is allowed to hit the *gilli* three times with the *daṇḍā* after making it rise by hitting it at either end and in any direction. Points are scored by claiming the distance covered by 3 strikes to be equal to a number of *daṇḍās*. If the distance claimed is agreed upon by the fielders the player continues to play. If it is challanged and distance falls short of the claim made, the player is out. The side scoring the agreed number of points first is declared winner. The losers have to pay a penalty. Three chosen players from the winning side strike the *gilli* three times in all and this distance should be covered by fielders by hopping.

There are several variations of this game.

Aṭā-pāṭā.

Āṭā-pāṭā is a "game of feints" played between two teams, each of nine players. The play field consists of eight breadth-wise strips known as *pāṭis* (trenches), each 23 feet 1 inch long and 13 inches wide, and laid out one after another equidistantly at 11 feet. The first *pāṭi* is called the *kapāl pāṭi* and last one the *loṇa pāṭi*. A *sūr-pāṭi* (central trench), 89 feet 1 inch long and 13 inches wide intersects the eight *pāṭis* in the middle to form on both its sides fourteen *couks* (squares). The space between two consecutive *pāṭis* is called *koṇḍi*. The game begins with the "attackers" who first stand outside the court near the *kapāl pāṭi* trying to dodge and slip through the *koṇḍis* by crossing the *pāṭis* without getting tagged by the "defenders" who move to and from each on his designated *pāṭi*. If any of the attackers successfully crosses all the *pāṭis* from the *kapāl pāṭi* to *loṇa pāṭi* and makes a return trip from the *loṇa pāṭi* to cross the *kapāl pāṭi*, a *loṇa* (game) is scored and the game starts a fresh. This way they proceed till the time of seven minutes is over. Then the defenders become the attackers.

Sāt-Thikries.

Sat-Ṭhikries is a game contested between two teams of players attackers and fielders — the one trying to knock from a distance a pile of *ṭhikries* (seven conically arranged tile-pieces), by an overhead throw of a soft ball and the others trying to catch the ball in fly either direct or after the first bounce. Points are scored according to the success of knocking the *ṭhikries* and fielding the ball.

DANCES.

DANCES : Many types of folk-dances and more sophisticated dances are current among the people. Some of them are connected with the magico-religious belief of a particular section or sect, and as such they are not universal. Some devotional dances are given only by professionals while a few are danced for the mere joy of rhythmic movement.

Mehuliā.

'Rain-Dance or *Mehulias*' · This form of dance is found among sections of lower communities. Children tie twigs of *nim* to their person and with an earthen pot go dancing from house to house. They sing songs invoking the god of rains 'Indra' to send rains to

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the earth so that small insects and animals may not die of thirst. They are given some corn, and water is poured on them. They proceed to the outskirts of the village, break the earthen pot and return. The dance is played at the beginning of the rainy season.

Garbā-dance.

Garbā-Dance : Garbas are played universally by women and young girls all over the district. The dance is performed to the accompaniment of music (instrumental or vocal). 16 or 32 girls move round in circle formation and sing the Garba keeping time with rhythmic claps of hands and stamping of foot. During the Garba various formations in pairs and in groups of four are shown during important celebrations. Sometimes *tipris* are used in the Garba. Each girl takes a pair of *tipris* striking alternately on the right and the left and also adjacent partners striking each other's *tipris*. There are many varieties of the Garba dance. Garbas are usually played during Nav-Ratra (i.e., the first nine days of the month of Ashvin) and during Śaradotsava (i.e., 15th day of the month of Ashvin). Garbas are also played during Gauri-Pujan i.e. in the month of Ashadh.

Now-a-days in all entertainment programmes given by girls one of the items is a Garbā-dance. The professional stage and the cinema-film have played a great role in introducing many new forms of Garbas and the accompanying songs.

Garbi.

Garbi : This type of folk-dance is very popular among men-folk just as Garba is popular with women folk. The movements of the 'Garbi' are similar to the Garba and so are its formations. Garbi, however, is more vigorous and has a quicker rhythm as compared with the 'Garbas'.

Rās.

Rās : This is a variation of the Garbā dance and is played by both men and women. Half the number are dressed up as *Gops* and half as *Gopis*. A small girl or boy is dressed up like 'Lord Sri Kṛṣṇa' and stands in the centre of the circle with make-believe imitation of playing a flute. The players move round the circle in pairs (one Gop, one Gopi) with *tipris* in rhythmic movements, the partners striking alternately their own *tipris* and those of their partners. Different dance-steps and formations are used to the accompaniment of music, instrumental and vocal. This form of dance is supposed to have been invented by 'Lord Srī Kṛṣṇa' during the days of his early childhood in the forest of Brindaban. There are several variations of 'Ras'. This dance is now-a-days to be seen in Annual School Functions and Entertainment Programmes. With adults it is a rare activity.

Gheriā-dance.

Gheria-Dance : This is a form of dance indulged in by men-folk of 'Halpatis' during 'Nav-Ratra', i.e., the first nine days of the month of Asvin. They move round in streets in big cities and *falias* in villages in small groups. Men dress up as women and tie tiny bells round their waists. One of them called the 'cat' is gaudily dressed up with soot applied to the face and body. The cat indulges in all sorts of

childish pranks while others in the dance-group dance and sing using *tipris*. They go on begging from street to street collecting alms.

Pavāi-dance.

Pavāi or Eunuch Dance : This is a form of dance indulged in by Pavāis (Eunuchs) who visit houses on ceremonial occasions like marriage, birth of a son etc., and amuse the house-hold by typical dancing, singing and blessings and then collect money.

Dobra-dance.

Dobrā Dance : This is a form of dance indulged in by 'Chodhras'. Both men and women participate actively in this dance. A huge musical organ resembling a huge pipe (the *Dobrā)* is played by one man standing in the centre of the circle. Men move round on the outside of the circle holding each other's waist and executing rhythmic foot-steps. Women also move round inside the circle in a similar fashion while the *dobrā* plays its stimulating music. A set music pattern is sung in chorus by the dancers during the dance.

Lezim-dance.

The dance which derives its name from the chief musical instrument the *lezim* used in the performance, is peculiarly Mahārāṣṭrian in structure and is often displayed at festive processions.

The formations used in this dance are many and varied. They include the circular formations as observed in *Tipri* and *Goph*, and other formations like marching in a line in twos, in fours and then forming different circles going again in a line. This dance admits a variety of vigorous movements, skipping, stepping, squatting, bending, hopping, throwing the head up, etc. The *lezim* itself supplies the necessary rhythmical music which is often supplemented by beats of *halgi* or *ḍhol* (drum) and every movement of the dance is performed in unison with the perfectly synchronised strokes of the *lezim* and drum beats. The swinging of *lezim* is done in four or eight counts. The four-count move does not admit the overhead stroke of the *lezim* which the eight-count one does adding more grace.

Tipri and Goph dances.

Tipri and *Goph*, which are indigenous folk-dances extensively obtaining all over India, may be dying out as an activity for men and boys. To some extent they are being revived as a part of physical education for boys and girls in primary and secondary schools.

Tipris are two tapering pieces of wood varying in size from 1½ to 2'. They may have a bunch of tiny bells fixed at the ends to add a jingle to the sound of the stroke. *Gophs* are strips of cloth attached to a pole or a suspended disc. The *tipris* are held in the hands by their thicker ends by the player. There are generally four or eight pairs participating in the dance. An orchestral accompaniment (*tablā* and harmonium) inspires the dancers to keep better time and adds to the grace of the performance. The dancers stand in a circle in pairs, the two in the pair facing each other. The *tipri* dance could be played without the *goph*, there being no material difference in the movements and formation. But the addition of *goph* held in the

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left hand by each dancer, adds to the spectacular effect of the dance. With the progress of the dancing steps in one direction, different patterns get woven out of the *goph* strips which, when the steps are retraced, get unwoven.

The dancers dance in various formations, some of which can clearly be discerned in various patterns of the *goph* when it is properly executed. The movements do not vary to a great extent in the different formations. The participants have to strike the *tipris* in unison with the beat of the *tablā* (drum) or the cymbal and move gracefully and promptly in various steps. Generally tiny bells are tied to the feet and wrong timing, if not wrong step, is sure to break the harmony of the dance.

Phudadi.

The *Phudadi* is usually played by girls in pairs. Two girls stand facing each other, keep their feet together with a distance of two or three inches between the toes, cross arms, keep them straight and hold each other's hands, balance the body backward, and each time, stepping the right foot a few inches to the right and sliding the left along with it, start in anti-clockwise movement. As the footwork quickens, the movement gathers in tempo till the dancers get swung in a whirl. The dancers sing out playful and gay couplets and blow rythmic breathing sounds with the mouth known as *pakvā* to keep time and add zest to the dance.

There are various types of *phudadis*. *Ekahātni-phudādi* is danced while holding only the right hands, the left hands kept resting on the hips. In *lolung phudadi* the players bend the legs and hold the great toes and then start rolling on the back and then sit. In *Bhoin phudadi* the dancers start with full squatting position and arms resting on the knees, and then scrape the feet alternately in oblique kicks balancing the steps with backward and forward movements of the arms.

AKHĀDĀS OR TĀLIMS.

Akhādās or *tālims* (Indian gymnasiums) have been of old the local centres of disseminating traditional knowledge of various forms of trained physical activities and culture in the younger generation. They are conducted by *Ustāds* or *gurūs* (trainer-gymnasts) who are much respected by their disciples. An *akhādā* is often regulated by certain ceremonials, observed with the most scrupulous etiquette. In villages, the *Māruti* temple serves the purpose of the gymnasium. A well-equipped *akhādā* may have a building of its own. In its necessary paraphernalia could be included an '*akhādā*' (wrestling pit), a *malkhāmb* (wrestler's post), some *jod-jodis* (Indian clubs), hand rests, heavy stone balls and equipments for such physical games as *lezim*, *lukdi*, *baneti*, *dāndpattā*, etc., and a picture frame or an idol of Hanumān, the god of strength. *Dandas* and *baithakas* are the common modes of exercise followed almost religiously by Indian gymnasts and wrestlers with a view to developing big muscles and general strength. The first is essentially an elbow-bent and a dipping exercise of the arms and the second is knee-bent effected by

squatting and standing.[1] *Kusti* (wrestling), at which Indians exhibit great skill and activity, has four traditional schools known according to the nature of the holds used by the wrestler to defeat his opponent. In the *Bheemseni* high degree of strength is required for the hold while the *Hanumanti* emphasises the "Specialised skill" in it. The *Jāmbawanti* was a perfect technique of interlocks and in the *Jarāsandhī* holds grave injuries such as dislocation, fracture etc., are aimed at. The *jod-jodī* or *mudgul* and the *lezim* exercises are practised to develop the strength of arms and shoulders. *Malkhāmba* exercises which have now developed into a specialised art were in their origin meant to train the wrestler in agility, balance and firm grip of hands and legs.

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AKHĀDAS OR TĀLIMS.

THE BACKWARD CLASSES.

The Backward Classes who are economically, educationally and socially backward as compared with others, consist of three distinct groups — the Scheduled Castes or Harijans, the Scheduled Tribes, and other (unscheduled) backward classes. All the Backward Classes are given educational facilities for their progress. The first two communities are in addition granted safeguards by the Indian Constitution and reservation in respect of the services and seats in Assemblies, Councils and Parliament is provided for them.

Bhangi, Chamār or Khālpā, Garodā, Shenvā, Turi and Dhed or Vankar are the six important Scheduled Castes and Bhil, Chodhrā, Dhankā, Dhodiā, Dublā, Gamit, Kāthodiā, Konknā, Nāyakadā, Tadvi, Talāviā, Vālvi, Vārli and Vasāvā are the fourteen Scheduled Tribes found residing in the district.

According to the enumeration of the 1951 census for Broach district, the population of the Scheduled Castes and Scheduled Tribes was 3,01,576 or 42.7 per cent. of the total population. Of these the Scheduled Castes consisted of 38,341 (m. 19,010; f. 19,331) persons, 32,030 (m. 15,952; f. 16,078) being in the rural area, and 6,311 (m. 3,058; f. 3,253) being in the urban area. The Scheduled Tribes consisted of 263,235 (m. 135,729; f. 127,506) persons, of which 249,206 (m. 128,146; f. 121,060) were in the rural area, and 14,029 (m. 7,583; f. 6,446) were in the urban area.

Regarding the distribution of the Scheduled Castes and Scheduled Tribes the district can be divided into two sub-divisions, i.e., Broach and Rājpiplā. The Broach sub-division comprises Broach, Ankleshwar, Jambusar, and Vagra *talukas* and Hansot and Amod *mahals*, and there these communities are not concentrated in any particular pocket. The Rajpipla sub-division comprises Nandod, Jhagadia and Dediapada *talukas* and Sagbara and Valia *mahals*. In Jhagadia *taluka*, north of the railway line running from Jhagadia to Umalla their population is small, but south of that line they are

1. In the semi-religious exercise popularly known as *sāṣṭānga namaskāra* or *Surya namaskāra* there is an ingenious combination of *danda*, *baithaka* and a breathing exercise.

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found in more numbers. In Dediapada *taluka* they are found scattered all over. The whole of the Sagbara *mahal* is mostly inhabited by them and in Valia *mahal* they are evenly distributed. The whole of Nandod *taluka* is inhabited mostly by Bhils, Vasavas, Talavias and Valvis.

In the following pages are described in some detail the customs and manners of the Bhangis and the Khalapas from the Scheduled Castes, and the Bhil, the Kathodia, the Dubla, the Tadvi, the Talavia, the Valvi, and the Vasava from the Scheduled Tribes.

Bhangis.

Bhangi or Bhangio are a caste of scavengers and sweepers believed to have arisen out of an admixture of families outcasted in the past for their offences against the social code of the higher castes. Their customs, therefore, are confused and uncertain. Regarding the application of the word Bhangi to this community three explanations are given. According to one it is indicative of a 'broken' or outcaste people; according to a second it means the scrapmen or livers on broken meat; according to a third, derived with some probability from the occupation of plaiting baskets and other articles of split bamboo still practised by them in some areas; it means bamboo-splitters. Hindu religious books say they are the offspring of a Brahman widow by a Shudra father. These people themselves believe that they are the descendants of a Brahman sage who carried away and buried a dog that died in the midst of a Brahman assembly. Their Surnames Chohān, Chudāsamā, Dapdā, Jeṭhvā, Makwāṇā, Soḷanki and Vāghelā are possibly indicative of recruitment from outcastes of these Rajput clans, while surnames like Dheḍvā, Kumbhār, Maru, and Purbiya suggest an intermixture of castes. Following the old village social order, Bhangis are engaged mainly in the work of removing filth of every description, including night-soil.

The Gujarati-speaking Bhangis in Broach are Hindus by religion. They honour almost all the Hindu divinities, and their favourite objects of worship are : in Central Gujarat — Hanuman, Meldi and Shikotri, and in South Gujarat — Ganapati, Devi and the *basil* plant. Many Bhangis are followers of the sects of Kabir, Rāmānand and Nānak. Some of them keep in their houses an image representing some woman of the family possessed by a spirit. They visit the holy places of Bahuchārji, Dākor, Dwārkā, Shuklatīrth and Unai, where they pay respects to their idols. They honour Musalman saints and some of them are Lālbegis, that is, disciples of the Musalman saint Lālbeg. In South Gujarat, their great day is *chaddi*, the dark ninth of *Shrāvan*. The day is marked in honour of a saint called Zahir Pir, the model of whose tomb they carry in a procession, the more devout dancing and singing before it, and some beating themselves with heavy iron chains but by the power of the saint receiving no harm.

Bhangias are bound together by a strong caste feeling and have their headmen to settle social disputes. Breaches of caste rules are

punished by forbidding the offenders the use of water and fire, and they are re-admitted into the caste on paying a fine. Polygamy, divorce and widow re-marriage are allowed among Bhangias. The younger brother preferentially marries the widow of his elder brother. Priests of their own castes or Garoḍas (Dheḍ Brāhmans) officiate at all their ceremonies.

Three or four days before the marriage, the bride and bridegroom, each at their own house are rubbed with *piṭhi* (scented powder), the women singing and making merry. On the marriage day, the bridegroom is received at the entrance of the marriage booth at bride's house by his mother-in-law; the boy and girl are seated within the *cori* (central square) in the marriage booth, facing each other; between them a fire is lighted; a cotton thread is wound round them; their hands are joined and they make four turns round the cori, feed each other with *kānsār* (a sweet), the hems of their garments are tied together and they are considered as married.

A husband may divorce his wife with the permission of the headman of the caste on the plea of her bad character. The husband tears a piece of cloth from his head-dress and gives it to his wife, and the wife takes off her glass bangles and puts them in the husband's lap. This done, the divorce is complete.

The poor bury and the well-to-do burn the dead The body is taken on a bier, from each corner of which a coconut hangs. When the body is burnt or buried the mourners bathe and return home. At the house of mourning, an upturned basket is placed over the spot where the head of the deceased lay. It is kept there for ten days, and on the eleventh it is set right, the earth underneath the basket is scraped away, and the basket is given to a priest from the caste. If the body is buried, a *dātaṇ* (tooth-twig) is laid on the grave for ten days. Death ceremonies are performed on the eleventh, twelfth and thirteenth day, the caste people being feasted on the twelfth.

Khālpās.

Khālpās, a caste of tanners and skin-dressers widely distributed all over Gujarat were found numbering 3164 (*m.* 1703; *f.* 1761) in Broach District in 1921. In northern Gujarat they are also known as Camārs or Cāmḍiās. The name is derived from *khāl* or *chāl*, and *carma* or *cāmaḍi* meaning outer skin. The community claim a mixture of Rajput blood and in proof of their descent bear Rajput *kul* (family) names, *e.g.* Bhakdia, Chavan, Chāḍā, Kataria, Parmār, etc. The appearance of many of them, light in colour, large and with regular features, supports the claim. They have also *kuls* (families) named after places, e.g., Dholkya, Sorathi, etc.

Marriages among the Khalpās cannot be performed between the members of the same *kul.* A marriage is settled with the help of a casteman styled *Vastalio* or *Kārbhāri*. The bride's father receives from the bridegroom's father a gift of money known as the *dej* or

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pallo. A Garuḍā Brahman who is either a *Khālpā* or a Dhed selects the auspicious day for the marriage and conducts the service. The following are the principal ceremonies.

The first ceremony observed when a marriage is settled is the *Ghan Murt* (rice pounding ceremony). This is followed by the ceremony of rubbing *piṭhī* (turmeric paste) to the bodies of the bride and bridegroom. On the marriage day Ganpati is worshipped and the planets are propitiated. Two earthern pots filled with water and coconuts placed on their mouths are worshipped as the marriage guardian deity. Then the bridegroom with friends and relations goes in a procession to the bride's house. The bride's mother receives him at the entrance of the marriage booth presenting him with a miniature plough, a grinding pestle, and a churning stick, and leads him to the *cori* (sacred square) in the marriage hall. The bride's maternal uncle carries the bride into the hall and seats her to the left of the bridegroom. The ends of the bride and bridegroom's robes are knotted together, their hands joined and the Garuda Brahman recites verses. When this is over a sacrificial fire is kindled on the *chori*, the bride and bridegroom throw *ghee* in the fire, take four turns round the fire, and this completes the marriage ceremony.

Widow re-marriage is allowed among Khalpas. A widow may marry the younger brother of her deceased husband if she likes. The re-marriage may be arranged either by her parents or by herself. A bachelor wishing to marry a widow is first married to a *shami* tree. Tying the skirts of the couple's garments, worshipping of Gaṇapati as the marriage deity and throwing grains of rice over each other's head completes the marriage ceremony. Sometimes the ceremony consists in holding a cocoanut between the heads of the bridel pair and bringing them in contact.

Divorce known as *chhuṭā chheḍā karvo, chheḍā phaḍī apvo, or talāk āpvo* is allowed. Either the husband or the wife can apply for a divorce, the applicant paying the other a sum settled by the caste *panch*. A woman divorced for adultery with a man of her own caste or of a higher one is allowed to remarry with widow remarriage rites, but adultery with a man of a lower caste is punished with excommunication. She can be readmitted into the caste after undergoing certain purification rites.

Khālpās abide by the Hindu law of inheritance and belong to the Hindu religion. Some are followers of Rāmānand, Kabir, and Rohidās. They worship the same gods and deities and go on pilgrimage to the same holy places as high caste Hindus. They worship their dead ancestors preparing their images and installing them in the compound of the house. When cholera and small-pox are raging they worship the goddess Mātā or Kākā Balis with offerings of food or of animal, the animal being severed of a limb and released.

They bury or burn their dead, small children and persons dying of cholera, small-pox, snake-bite and leprosy being preferably buried. The deceased is laid in the grave on his back, the head pointing northwards. The castemen are fested on the 11th or 12th day, and to propitiate ancestors in general *srāddha* ceremonies are performed in the dark half of *Bhādrapada*.

Bhils.
Population.

Of the Scheduled Tribes in Broach district, the Bhils are the most numerous. The name Bhil is often given to several tribes such as Chodhras, Dhankās, Dhodias, Katkaris, Konkanās, and Vārlis and therefore, the census figures regarding their population cannot be taken as accurate. According to the census of 1872 Bhils and Talāvias who formed the *aborigines* of this district had a total strength of 42,859 or 15.25 per cent. of the Hindu population, of which Bhils numbered 24,703 (*m.* 12,667; *f.* 12,036), and in the Rājpiplā State (now merged in Broach district), of the 71,585 belonging to unsettled classes, Bhils numbered 62,163. According to census of 1901 the Bhil population in Broach district was 34,652 and in Rājpiplā State the animists numbered 16,075. From the information available with the Backward Class Welfare Officer, Broach and Baroda, the Bhils in Broach district at present (1950) number 142,810, and are found in considerable strength in Ankleshwar, Broach, Dediapada, Jhagadia and Nandod tālukas and Sagbara and Valia *petas*.

Divisions.

Bhils may roughly be divided into two territorial groups, (1) Gujarāt Bhils and (2) Khandesh Bhils. Most of the Bhils of Broach naturally fall in the first category. There are also (1) hill Bhils and (2) plain Bhils, and except that the latter are more settled and better off than the former, there is no difference of tradition and customs between them. There are about 150 clans or septs among Bhils, chief of them are Dāmor, Vasaiyā, Parmār, Hāthilā, Rāthod, Solanki, Mahidā, Vasāvā etc. These septs are exogamous and marriage is prohibited within the same sept.

The tribe once led a semi-nomadic life of hunting, gathering of wild fruits and forest produce and shifting cultivation, traits of which are still found among them. Even to-day a Bhil would like to cut a forest on a hillside and do cultivation on its slope.

Houses.

Bhil houses, built neither in groups nor rows, are scattered at some distance from each other, so that a Bhil village may cover an area of three or four sq. miles. Generally a Bhil hut is perched on a small hillock, overlooking his field. For this there are three chief reaosns; the fear that their neighbour may be a witch and bring some calamity on them; their great dread of infection, which they believe to be the work of evil spirits, so that the favourate cure for a Bhil who has been long sick is to change his house; and lastly there is the fear of fire, fires being kept burning in every hut both for heat and light. Coming towards a Bhil house what first meets the eye is an eight or ten feet high fence of untrimmed bamboos woven in and out of uprights fixed in the ground at short intervals.

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This, except for a bamboo gate about six feet broad goes round the hut enclosing a small yard. Opposite the entrance is generally a small covered stage for grass and earthen pots; it is high enough to be used as a cattle shed. Inside of the shed is the house, a hut sometimes with mud walls, but oftener of brushwood or of opened bamboos, plastered inside with mud and cow-dung. The roof is peaked and has deep overhanging eaves. It is either covered with large flat tiles or thatched with grass or with teak or palm leaves.

The Bhil hut is built of two forked uprights of *khair* (Acacia catechu), or teak, with a beam of teak laid across, upon which are fastened light teak rafters or bamboos. The rafters are fastened to the ridge pole by boring holes through their upper ends, and passing small male bamboos, generally through four rafters at a time, two of them going on one side of the roof and two on the other. If bamboo poles are used as rafters, they are chosen long enough to form both sides of the roof. From the under-side of the centre of the bamboo a piece is cut, and this resting on the ridge-pole, the two ends of the bamboo fall fall on the side, shoots of creepers and strips of bark helped by the weight of the thatch keeping the rafters in their place. The hut has usually one opening protected by a wattled bamboo door. The back side of a hut is blind. Those, whose economic condition has improved have good houses having mud walls and good doors and a window or two in front. But the back side is kept blind. Now-a-days they build their houses in a group of three or four or even more. In Broach district we find a Bhil village compact with a number of houses on a rise in a cluster, and over-looking the fields that stretch away all around the village.

Furniture.

Of household goods of a Bhil, the stock is small. Outside may be seen, if the family is well-to-do, a pair of bullocks, or a bullock and buffalo, cows, some sheep and goats, and a number of fowls, a cart and field tools including a plough, a *kharpi* (weeder), and a *koḍāḷi* (hoe). Cattle is considered as wealth and therefore Bhils generally keep many cattle. But a few have no cattle, particularly those who have become landless and do agricultural labour. Most Bhils have no carts. In the hut, besides the sleeping mat, the hand grind-stone, and a roll of blanket or torn coverlet, there is nothing but a few pots and cups, most of them of clay.

A *toḍlu* (earthern currypot), a *kulāḍu* (flat earthern dish for baking cakes), an *asan* (bamboo cup to sup from), a *thamdu* earthern waterpot), a *rāmpatra* (earthern bowl), a *vāṭi* (brass bowl), a *kanau* (wide-mouthed tin), a *tasli* (drinking cup), a *thāli* (bronze plate), and a *māṭlu* (earthen jar for storing corn). Bhils have hoes or *koḍalis* as they generally use a small crowbar or a ploughshare in digging. Every house has a number of large earthen jars to store grain and large circular bamboo baskets or *porsas* to hold grain. Each house generally has two brass mugs or *loṭās*, two or more brass plates or *thālis* and other brass utensils. The baskets are generally kept outside the hut.

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Dress.

Among men, except the top-knot, the hair of the head is sometimes cut short but as a rule it is worn long. All wear moustache, some whiskers and a few the beard.

Bhil women wear the hair in three ways : It is either drawn back and tied behind the ears, or it is gathered behind in a roll or knot, or it is plaited in three tresses. When the hair is plaited, the side tresses are allowed to droop over the eye-brows and are then drawn behind the ear, while the back tress, hangs straight like a queue or pigtail with a *jhābu* (hollow brass ball) at the end. The Rājpiplā Bhil women do not wear *jhābu*.

For their everyday dress men wear round the head a *fentā* or *fāliā* (head cloth) made of coarse cloth, a *paceḍi* (shoulder cloth) of much the same length, thrown over the shoulders or used to cover the body when sleeping, and a *poṭiū* or *falu* (waistcloth) girded round the loins. When they are at home they work with *khoytu* (loin-cloth), and the turban only. For holiday wear, a *pāghadi* (turban) or a cap, a *jāmā* (long coat) or *aṅgarkhā* (coat) a shirt or a *banḍi* (colourless coat) are added. The Bhil woman's every-day dress is over the head and shoulders a *sallo* (short robe), a *kañcawo* (open-backed bodice) and a *gāgro* (petticoat) all made of coarse cotton cloth. Rājpiplā Bhil women put on a *coli* (a close backed bodice) just as other Gujarāti women do. On holidays they wear a bodice of chequered cloth of silk or rayon and a *bāndhṇi* (over-robe). Of the various kinds of women's robes the *sāḍi* or *sallo* is made of *khadi* (coarse cloth), printed with small patterns in black blue and red; the *cuṅdaḍī* is made of *madapollam* cloth, the ground being red with patterns of different colours; the *bāndhaṇi* and *reniā* are made of fine cloth, the ground being generally red with small circular spots of other colours, chiefly black printed symmetrically on the red, and the *pomcā* generally made of *mādarpāt* (a finer cloth) and sometimes of *khādi* (coarse cloth), has a black border and a red ground with two or three large circular black patterns in the midst.

The women wear a white bodice until either they are mothers or middle aged; after this they wear a coloured bodice. Unlike high class Hindu women the robe is simply thrown over the head and the body, and the petticoat instead of hanging to near the ankle, is tucked up so that the legs up to the thighs are bare.

Ornaments.

The Rājpiplā Bhil women are more sparing in their use of ornaments than their sisters of Panchmahals or Sabarkantha. They wear tin silver earrings, on their arms five or six broad brass *chalis* (bracelets), and the well-to-do, an elbow-ring of silver. On their legs they wear broad brass anklets, some solid, other hollow with jingling balls inside.

Of ornaments, men wear silver *veliu* (earrings, and silver *bhoria* (bracelets). Some well-to-do Bhils may wear a *toḍā* of silver on the right ankle. Of the women's ornaments, the *bor*, *rākhadi*, and *jhabu*

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are the chief head ornaments, of which the first two are seldom and last one never worn by elderly women. They are made of silver, tin or brass. The ear ornaments include three *vedlās* (rings) of silver, brass or tin for the upper ear, and one *loliyu* of silver, brass or wood for the lower lobe. A *mendli* (silver or tin chain) attached to the hair by a hook at one end pulls up the *vedlās* to relieve the upper ear of their weight. In the nose is sometimes worn a nose-ring generally of gold or silver and occasionally of brass or tin. Round the neck, in addition to strings of glass or stone beads and shells that often completely cover the breast, is worn a *hansdi* of silver or tin. Besides this a well-to-do Bhil woman wears a *tedia* (necklace) of gold. For the wrists and arms the ornaments are almost all of brass or tin. Of 15 to 20 wristlets worn on each wrist the first two or three are called *bhorias* either of brass or tin, above the *bhorias* are worn one or two *ghurris* either of brass or tin, above the *ghurris* seven or eight *lodhias* always of brass, above *lodhias* four or five *kākans* or brass, and last of all near the elbow joint, one or two *cudis* either of brass or tin. Of seven or eight armlets worn on each arm, beginning from that worn just above the elbow joint, the first is a tin *jhelo*, then a *golia* of glass or sealing-wax, then three or four *pātdis*, then one *pātdā*, and last of all one *dāl*, all of tin. An anklet or two of tin are worn on the legs, some old women persisting with the outmoded brass rings. Across the instep is worn the *pāval* or *pinjui*, above the ankle five or six *kadis* (rings) of flat chips, and above the *kadis* seven or eight *khokhrās* (round rings). To the top-most *khokhrā* a well-to-do woman fastens jingling bells. Besides these, on the hand fingers the women also wear brass rings, four for each hand and on the feet brass toe rings.

The Rājpiplā Bhil women do not wear so many ornaments on wrists and arms as their sisters in other parts of the district. They wear a few ornaments on wrists and arms. They wear tin or silver earrings, on their arms five or six broad brass *chalis* (bracelets) and, if well-to-do, a silver elbow ring.

Food.

Except the flesh of the ass, horse, camel, rat, snake and monkey, the Bhil objects to no form of flesh. The every-day food of a well-to-do Bhil is rice cooked with salt and mixed with butter-milk, and of an ordinary Bhil, corn and butter-milk boiled with chillies, and sometimes split peas or beans and grain mixed with vegetables. At places in cold months it consists of *rotlo* (bread) made of the flour of Indian corn or other coarse grains, such as *kodra* or *bant* (Panicum spicatum), with occassionally split pulse, *adad* (Phaseolus mungo). Sometimes they eat *khicadi*, a mixture of coarse rice and boiled split pulse, *adad* or *mug* (Phaseolus radiatus). In the hot season, when in their thriftlessness they run short of grain or when there is scarcity or famine, the poorer class is forced to live on boiled *mahudā* berries, or *mahudā* or *rayan* or *khirni* (Mimusops hexandra) berries mixed with a little corn flour; on Indian corn flour porridge soured with dry or green mangoes or dried jujube apples, and

butter-milk. In rainy season a few may be required to live on wild fruits and roots eked out with *samo*, a wild self-sown grain that comes up after the first few showers of rain. To these are added some wild salads, pot-herbs, and a few vegetables, chiefly onions and chillies grown in plots near their huts.

By the help of his bow and arrow a Bhil manages on most days to bring home a pigeon or a patridge, a wild cat, or a hare, and on special occasions or when there are guests he may kill a goat. Bhils rear fowls in large numbers chiefly for sale, but some he may kill as offerings to ghosts and spirits. As there is a belief among them that if women eat or even cook a) cock or hen they will become witches, they will not let a fowl be cooked in the house or even in one of the household vessels. The men cook and eat them at their *devasthān* (spirit yard).

Occupation.

Bhils are mostly peasants, agricultural and forest labourers and watchmen. In Broach many are village watchmen and agricultural labourers and in the forest lands of the South they also are labourers in forests. They are efficient charcoal burners and wood cutters. In a Bhil family, besides attending to the house the women help in the fields, gather berries, and work as labourers. All the minor operations in agriculture like weeding, harvesting etc. are done by women. Major operations like ploughing, digging out shrubs and weeds etc. are done by men.

Character.

The Gujarat Bhil is honest and frank but thriftless and improvident. Fifty years ago there were almost daily complaints of their daring aggressions, but they are not as a class given to serious crime. They are now taking to improved methods of agriculture with a view to living a settled life as good agriculturists. They excavate wells in their fields, raise crops by well irrigation and now some of them are taking to vegetable cultivation. In this part of the province the yearly income of the richest Bhil is estimated at about Rs. 1,500. Most Bhils have large families. Including the grain given in charity, for Bhils consider it a sin to turn away a begger, the ordinary monthly expenses of most families consisting of father, mother and three children are not less than Rs. 30.

More than a hundred years ago (A. D. 1847), the Broach Bhils who were chiefly village watchmen went about armed with bows and arrows, and though trusted in the matter of Government money, were said often to band together and attack the villages they were paid to protect. Since then they have gradually grown more orderly, but are still poor and resort to crime out of sheer necessity of feeding themselves.

Religion.

It is not easy to describe the religion of the Bhils as they are in all stages of civilization, from the wild fetish and nature worshipper having no idea of a divine being to the peaceful peasant who observed most of the details of popular Hinduism. The religious

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beliefs of the wilder sections of the tribe are fast giving way to the beliefs of the Kanbis, and at no distant future are likely to be wholly replaced by the latter.

The original religion of the Bhils was perhaps a form of nature worship, and even now they worship the Vāgh-deva (tiger god), Sivāriya-deo (boundary god), Nimāji-deva who is the god of *Aptā* plant or trees, Dungaryā-deo (mountain god), Bārā bīj or the moon etc. Other minor deities worshipped by them are Kāli, Hatipāvā, Khadiyārmātā, Bhadribai mātā, Ginvā Deva, Shālu Pāndar etc. They worship female deities known as *mātās*, represented by symbols rather than images, by wooden posts, earthen pots, toy horses, wicker baskets, and winnowing fans. They believe greatly in demonical influence, witchcraft and omens. Of the gods of their adopted religion they chiefly worship Mahādev, whose fiercer aspects appeal to these original nature worshippers.

Bhils have no temples. Over some of their most sacred images they raise open sheds; but, in general, for a place of worship they choose some tree consecrated by a few large stones set on a mud terrace built round the roots. Though ready to revere ordinary Hindu gods, his ignorance of their worship makes a Bhil hold aloof from them. Devi is an exception. He visits her temple and contrary to his usual practice spares the life of and sets free the animal he dedicates to Devī. He respects Musalman shrines and makes offerings to Musalman saints. He even eats food cooked by a Musalman. Inspite of this, there is not in Gujarāt any tribe or class of Musalman Bhils. They revere the moon called *bārbij* or *bārābij* and swear by it. But their chief objects of worship are spirits and ghosts. In the forests near an old tree or well, but often apparently at some chance spot, they offer to ghosts and spirits earthen horses, jars and bee-hive-shaped vessels. In honour of the spirits in most of these *devasthāns* (god-yards), they also raise beams of timber, sometimes as much as 12 ft. long, poised on two uprights in the form of a rough seat. Here they offer a goat and a cock, numbers of Bhils coming together to eat the sacrifice and to drink

Bhils hold three classes of men in special reverence. These are *bhagats* or *badvās* i.e. devotees and exorcists, *rāvals* i.e priests, and *bhats* or *dholis* i.e. minstrels. The Rāvals and Dholis are separate castes while the rest are from amongst the Bhils themselves. Any Bhil who can learn to recite the incantations can become a Badvā. Though the Raval as well as the Dholi get a cremation after death, the former is considered superior to the latter. The Badvā conducts the *jātars* (sacrifices) and is consulted on occasions of general calamity and individual sickness. When the rains hold off or when cattle disease or other epidemics visit a village, the Badvā traces the evil to the displeasure of some particular god and tells what sacrifices the god demands to allay his displeasure. When an individual suffers from sickness, a relation of the sick takes to the Badvā

a handful of maize or *aḍad* which has been laid on the body of the sick for one night. The Baḍvā examines this grain and decides that the cause of the sickness is either the displeasure of some diety, generally the Goddess Okha, or, and this is commoner, the evil eye of a witch. If the case is one of divine displeasure vows are made to the god or goddess and when the sick recovers, offerings are given. When the sickness is traced to the evil eye of a witch, the *Baḍvā* names the woman who has caused the evil. To find out whether the woman named is a real witch, the people take her out of the village and subject her to a number of different severe ordeals. Sometimes through dread of the ordeals, but more often to gain or to keep the position of a witch which secures a free supply of milk and chickens, the woman confesses herself a witch. She admits she had brought the sickness on the suffering person and that to cure him she wants the offering of a he-buffalo, a goat or a cock. After she has promised to cure the sick person, the woman is taken back to the village. If the sick recovers, the animal named by the witch is sacrificed by having its throat cut, the blood is caught in a dish and while still warm is given to the witch to drink, who either from fear or to keep up her reputation drinks it off. If the sick person dies, the witch is often driven into the forest to die of hunger or to fall a prey to some wild beast. Cases are on record of witches being burned to death, and severely beaten, or even cut to pieces by the sword, and the police had to take cognisance and bring to book the offenders. But nowadays due to spread of education and propaganda by social workers, *baḍvās* and witchcraft are losing hold on masses, and ordeals for testing a witch are becoming things of past.

Among the *Baḍvās*, a few known as *Kājaliyā* (black Badvās) are known for their special skill in finding out witches. A Kājaliyā is said to be able to name the witch's dwelling in an unknown village, to tell the past of an unknown man, and to foresee the future. Besides the Baḍvās, in several villages there are *pujāris* who worship the village gods by washing and daubing with redlead the idols in the village temple. For this service, the *pujāri* at harvest receives a gift of grain from each villager and in some villages holds service lands. They are generally brothers or cousins of the village headman. Besides worshipping the idols, the *pujāri* manages the village fair (*jātara*) and to meet the expenses of the fair collects subscriptions from the villagers. As spirits from liquor shops was not considered suited for the use of the gods, the *pujāri* at the *mahuḍā* (Bassia latifolia) harvest collected *mahuḍā* flowers from the villagers, and on the day of the fair after bathing, distilled liquor for the gods in new unused vessels by a special permit from the Mamlatdar. Distillation of special liquor for gods (Kunwara Hara) is out of practice now, all offerings to gods being without liquor. The *pujāri* has also the right to invite the gods to be present at the fair. At nightfall on the day before the fair the *pujāri* stands near the house of the

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village headman and cries in a loud voice, "Gods and goddesses of this village, we have resolved to hold a fair; return from whatever place you have gone to and be present". After this call, generally at the houses of the village headman, the Badvā sings incantations till morning.

Recourse to black magic is decreasing day by day as the people are becoming literate, and casting away age-long prejudices and superstitious beliefs. Measures like malaria control and opening of dispensaries in rural areas for medical relief have been very effective in removal of superstitious beliefs and in creating disbelief in Badvās and their magic.

The Dholis.

Of the Dholis or Bhats and Rāvals who form independent castes, a Dholi family is found in every five or six villages and at least one Rāval family in every Bhil village. The Dholis live on alms given by the Bhils and hold no lands. Like the Bhils the Dholis are divided into clans and do not marry in the same clan. The Dholi has three musical instruments, the *ravaj* (guitar, like the *sitar*), the *sarangi* (fiddle), and the *dholki* (drum). At marriage the Dholi plays on all these instruments. At deaths he makes his drum give a peculiar mournful tone at the sound of which the people of the neighbouring villages gather for the funeral. If the relatives of the deceased are rich enough to give the Dholi a calf or a cow, the Dholi beating on the drum accompanies the funeral party to the burning ground. If he does not accompany the funeral party, the Dholi receives a piece of cloth worth about two rupees. The Dholi also attends the funeral feast. Each Dholi has fixed villages in which to beg. A Damor Dholi generally begs in villages which have a large number of Damor Bhils, and a Bhabhor Dholi in villages which have a large number of Bhabhor Bhils. In these fixed villages, the Dholi begs from any Bhil whether he belongs to his own or to another clan. In other villages the Dholi cannot claim alms, except that a married woman would consider it an insult if her parents' Dholi is turned away from her husband's house without receiving alms. During the rains, the Dholi stays at home; during the fair season he travels from house to house with his family and household things. In travelling, the Dholi generally rides on a pony, his family on asses, and his household things are also laden on asses. During his travel, the Dholi with his family lives at the house of each well-to-do Bhil for two or three days and sings the geneology of his host. During the stay the Dholi and his family are fed by their host and at their departure they are given a present worth about a rupee.

The Rāvals

Rāvals who are found in every village, besides begging alms, till land. In each village the Rāval is of the clan to which the bulk of the Bhils belong. The Rāval's chief duty is to offer food to the dead at a death dinner or *kaita*. On the night before the dinner the Rāval comes to the house of mourning bringing a one-stringed guitar or *kindru* and a pair of brass cymbals or *manjiras*. He clashes the cymbals with one hand and with the other plays on the guitar. He

also brings two small brass images, one of a horse representing the horse of Bārbij or the Moon and the other called *gāvatri* representing a cow with a sucking calf. A small space is cleared in front of the house, a lamp with clarified butter is lighted and on the cleared space are set a coconut, four copper coins; and five *seers* of boiled maize. The Rāval sits on this cleared space and in front of him sits the giver of the dinner who is generally a son of the deceased. The host sits holding in both hands a brass platter or *thāli*, on which the brass cow *(gāvatri)* is set standing in a pool of milk. The Rāval sings till midnight accompanying himself with his guitar and cymbals. He sings the praises of the gods; he tells how the body was borne to the burning ground and burned; he ends with the song that describes the brave deeds of the Kshatris in old days and how they made all men tremble before them. While the song of the brave is being sung the soul of the dead passes into the cow Gāvatri and the cow begins to shake. The ceremony ends by the Rāval lifting the brass cow from the platter and setting it on the ground. The Rāval goes home taking the platter, the maize or *ghāṭḍi* (thick maize flour, cooked in water) as it is called, the copper pieces and the coconut which were placed on the cleared ground. A well-to-do family gives the brass horse and the cow to the Rāval. The horse is made of brass taken from anklets worn by the widow of the deceased and is kept in a neighbour's house and at the close of the ceremony is presented to the Rāval. On the *Dasūrū* or tenth of the first fortnight of *Āshvin* the Rāval washes, cleans and worships his brass horse and cow. On the *Divāli* or last day of *Āshvin* the Rāval takes the brass horse and cow to the houses of well-to-do Bhils who give him alms.

The animal held in most veneration by Bhils is the horse. If a prayer has been granted, they often make small clay horses and range them round an idol or in the spirit-yard. In many of their legends the principal event depends on the assistance or advice of an enchanted horse. Except the Modasa Bhils who kill neither the cow nor the blue-bull (portax pictus), Bhils have no special feeling for the cow, they do not worship snakes and kill them when they have the chance. Except a few who reverence the *pipal* (Ficus religiosa) they have no holy trees or plants.

Festivals.

With the Bhils the chief festivals are those in honour of the dead. The festivals they specially observed are *Simgā* or *Holi* at the spring equinox, *Dasarā* the day of the autumn equinox, *Janmāsṭami* Lord Kṛṣṇ's *jayanti*, *Āmli Ekādasi*, eleventh day of the first half of Fālgun month and *Divāli* in October. Both *Shimgā* and *Dasarā*, especially the spring festival, are times of great merriment. During the *Holi* festival, Bhils, men and women, old and young, meet together for several days before the festival and sing indecent songs and indulge in exchange of filthy words. The parties also go to the house of the village headman and other well-to-do people and after singing and dancing demand *goṭh* (presents). On the day of the Holi festival, the village headman lights a bonfire at sunset and round

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the fire the Bhils dance and sing till midnight or later. Next day which is the *dhuleti* (dust throwing) day, the Bhils throw dust and dry cowdung over each other, assemble at the bonfire and dance and sing. A few perform the ordeal called *chul* of walking with naked feet on the burning charcoal, after which the people disperse. On the 6th day of the other half of Falgun a festival called *gol gadhedā* is celebrated. The young men and women practise a dance round a pole or a tree at the top of which a coconut fruit and *gur* are tied. The women folk dance round the pole in the inner circle and prevent the men reaching the pole, while on the outer circle the young men dance to the same time. The trial of strength begins when young man attempts to reach and climb the pole to eat the coconut and *gur*. In breaking through the circle, he meets with strong resistance from women who strike him with green bamboo sticks. Should the young man succeed even after passing through this ordeal he passes the test of valour and stands a chance of being selected by any young girl as her mate. *Gol gadhedā* ceremony is an occasion when many a young boy finds out mates of his choice from amongst the large gathering that has assembled on the occasion. *Janmāṣṭami* is also observed by holding *meḷās* (fairs) in towns. Hundreds of Bhils attend the fair. Dancing and singing are enjoyed with hilarity. The flute which is a very popular musical instrument among the Bhils is played on this occasion by young Bhils in sweet melodies attracting many a young girl.

At the *Dasara* in early *Ashvin* some Bhils outside the village keep the Nine-Night *(Nav Ratri)* feast and ceremony in honour of Durgā Devi. On the second day of *Ashvin* they also, as is common among high class Hindus, sow barley in a dish fitted with earth, keep it in the house covered with a screen and carefully watered and tended till the ninth day when it is cut as a sacrifice to the goddess. Numbers come to see the barley cut. The seedlings are carried with music and thrown into a river or pond. The people scramble for the seedlings, wear them in their turbans till they dry and even when withered cherish them as sacred relics. On *Divāli* day a thanks giving to the gods is performed near the cattle shed. In the morning the ground near the door of the cattle shed is cleaned and a small circle is made with rice. In this circle besides a lamp seven lumps of boiled rice or maize are set on seven leaves. A fire is kept burning and clarified butter is thrown over it. One man, generally the owner of the house, puts his hand over five hens, throws water on them, and offers them to the gods, saying "O Dharma Indra, this sacrifice we offer to thee. During the coming twelve months keep all our cattle free from disease; do not make them ill and increase them and be kindly". At the same time another man cuts the throats of the hens. A third man with his hand sprinkles liquor on the ground saying "O Dharma Indra, we pour this spirit to thee". The cattle, that is the cows and oxen but not buffaloes, with horns painted red, are let out from the cattle-sheds, the headman's cattle-shed being the first to be opened. When all the cattle are gathered, they are

driven over the body of a Bhil, generally a cowherd, who lies on the ground at full length with his face down and for running the risk of being trodden on receives from the headman the present of a cloth or turban.

Jātars.

Besides these three regular festivals, the Bhils perform three *jātars* (sacrifices). First, on Dasara Day the bright tenth of Ashvin, second in Ashāḍ when the green grass shoots, and the third in Ashvin when the early rainy season harvest is reaped. On Dassara Day the sacrifice is offered either to the goddess Kālikā or Cāmundi or to the god Kacumbhar, in *Ashāḍ* to the god Sarsel or Sālun and in *Ashvin* when the crop ripens to the goddess Cāmuṇḍi. On all these occasions the *jātar* (sacrifice) is performed with the same rites. On the day before the *jātar*, the village headman cleans his house and at nightfall calls the Baḍvā to recite incantations. The *Pujāri*, or in the absence of the Pujāri, the Baḍvā, with a loud voice calls the gods to be present. Throughout the night the Baḍvā goes on singing. He first invokes the aid of Śardā, the goddess of learning and then sings the praises of Gaṇapati and other divinities, including the goddess Cāmuṇḍi and the god Kacumbhar. He recites the tale of Jasma, the old woman who rejected the love of king Siddhraj Jaisingh (A.D. 1100). Early next morning the Baḍvā becomes inspired by the god Kacumbhar. To ascertain if he is really inspired, or as the Bhils say, if the breath has entered him, they send the Baḍvā to bathe and in his absence place in a line on the ground seven *billas* (apples) of the *bel* (Aegle marmelos) tree. On his return the Baḍvā is asked to point out which apple was first laid down. If he chooses the right one, he is believed to be really inspired. Certain of the persons present then ask the Baḍvā questions regarding their future, regarding the cause and cure of some sickness, the next rainfall, or the cattle plague. The people then accompany the Baḍvā outside the village to the *devasthān* (spirit-yard) of the god or goddess in whose honour the *jātar* is held. In this spirit-yard the Baḍvā sings, becomes inspired, and is again asked a number of questions. After the breath or spirit of the god has passed the Baḍvā offers the sacrifice of a buffalo or a goat, generally a buffalo, on Dassarā Day. The head of the animal is taken by the village headman and the rest of the meat is distributed on the spot.

Gondrā.

Gondrā is another community festival performed by them to ward off spirits who cause sickness among men and cattle. *Dala* or Indrarāj is also a community festival performed to god Indrarāj for bestowing happiness to the family. The rites followed in performing *gondrā* and *dala* are mainly propitiatory.

Ceremonies
Birth.

Bhils have four chief ceremonies, naming the child, its first shaving, marriage and death. Five days after the birth, the child and mother are bathed. The mother makes a circle of flour, piles little heaps of flour on all sides and sits in the middle of the circle when her female relations make her presents of money or clothes. On the tenth day the father and

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mother name the child. On the twelfth day the house is cleaned and a feast is given. The child's head is shaved when five years old. The child's aunt takes the hair in her lap and wrapping it in her clothes, receives a cow, buffalo or some other present from the child's father.

The next ceremony is marriage, which seldom takes place before the boy is twenty and the girl fifteen. Child marriage is very seldom, which is a very noteworthy feature of Bhil society. Marriage is arranged entirely by the relations but with the consent of the couple. When parents wish to marry their son, they send friends to the parents of the girl whom they wish to become their son's bride. These make proposals and present *gur* (jaggery) and coconut, and if they accept the offer of marriage, the girl's parents eat the *gur*. After some time the boy's father visits the girl and presents her with clothes and food. The betrothal is then complete. Three or five days before the marriage day the bride and bridegroom each in their own homes are rubbed with *piṭhī* (yellow powder). The bridegroom and the bride, each in his or her house, is daily taken in procession at nights on shoulders of his or her maternal uncle or other relatives and friends. This is continued for five days. In the south, during the ceremony the bride's party laugh and jeer at the party of the bridegroom, the men at the men, the women at the women. After the ceremony a fire is kindled, and round it the people dance. When the dance is over the bridegroom gives all tea before they leave. Then the bridegroom is bathed and afterwards, to guard against the evil eye, his eyes and cheeks are marked with *kājal* (soot). The bridegroom wears a turban, a long coat of country cloth, a *dhotar* (waist cloth) and a sword. The party start with drums and cymbals to the bride's village. The women follow singing. When they reach the village they stop a couple of hundred yards from the bride's house. Here they are met by the bride's father and a few friends. After saluting they seat themselves and the amount fixed as the price of the bride is counted out. The bride's father then goes back to his house, the bridegroom and his party following with music. On reaching the house the bridgroom's party are seated on one side of a *māṇḍvā* (booth) built in front of the door. The bride is then led in by her mother and seated opposite the bridegroom, their hands are joined and the hems of their garments are tied. Then, while three women sing songs, the bride and bridegroom walk together twelve times, the bridegroom leading for the first six and the bride for the second six, round a branch of the *sāmḍi* (Prosopis spicigera) tree, placed in the middle of the booth. When this is over, the bride's mother leads the bride and bridegroom into the house and lays before them a dish of wheaten bread and molasses, and with this the bride and bridegroom feed each other in turn five times over. Then the knot that fastened their garments is unloosed and the bridegroom, leaving the bride, returns with his friends to his own house. Here he and his party feed on rice and pulse sent by the bride's father. When the meal is over they return to the bride's

The mother brings out the bride. The garments of the bride and bridegroom are again tied together and taking the bride with him, the bridegroom accompanied by his friends, returns to his house.

In some instances when the match is not made by the parents of the bride and bridegroom, the young couple arrange matters unknown to their parents. They disappear and after hiding for some days in the forest, come back and declare themselves man and wife. The parents as a rule accept the situation and after settling the bride's dowry which is generally from Rs. 60 to Rs. 80, the marriage is celebrated in the usual form. If the matter is not quietly settled, a feud runs on between the families until the bride is seized by force from the bridegroom's family or his cattle are carried off. Sometimes a woman boldly walks into the house of the man she wishes to marry and declares that he is her husband. Should he be willing, he sends for her father, makes him a present of Rs. 60 to 80, and the latter consents to the match. If the man is unwilling he is not forced to make the woman his wife. Again, if a Bhil wishes to marry and is unable to pay his wedding expenses, he joins his future father-in-law as a serf, and contracts to serve him for a certain number of years, at the end of which he is entitled to the girl's hand and to have all the marriage expenses paid.

Divorce and remarriage.

A man marries a second or a third wife if the first wife does not bear children or if she does not get on with him or if he does not like her or if he has a large number of children and the work of the house is heavy. A woman marries again, not only if her husband dies, but if she falls in love with another man and can get him to take her and pay her husband his marriage expenses. The children, if there are any, remain with the father. An unmarried girl is allowed to live with any man she likes without any ceremoney either of marriage or betrothal. If after betrothal a girl goes to live with some other man, her husband has to pay her betrothed the cost of the betrothal ceremony. So, after marriage, if a woman takes a fancy to any man she may go and live with him if he is willing to pay her husband's marriage expenses. When a man wishes to marry a widow, if his proposals are accepted, the suitor is desired to bring to the house of his intended bride such presents as he can afford, which are usually a petticoat of coarse chints, a robe, a bodice, a necklace of beads, two pots of arrack, sixteen pounds of roasted peas, and two pounds of molasses. The match is then considered settled. Taking some friends with him and the materials for a feast the man goes to the woman's house where a company of her friends are met. Next morning before daybreak the married pair have to leave the house. Marriage with a widow generally takes the form of an elopement, the bride and bridegroom being received back after the bridegroom has made the bride's friends and the headman a present. The couple pass the day after the wedding in some solitary place three or four miles from the village, from where they must not return till dusk. Their friends send them meat and other eatables.

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According to the amount to be paid to the bride's father or guardian, the cost of marriage to the bridegroom varies from Rs. 200 to Rs. 500. Of this Rs. 100 to Rs. 300 are paid to the bride's father, Rs. 100 to 200 are spent in buying new clothes and ornaments for the bride, Rs. 50 in making presents of clothes or cash to the bride's relations, Rs. 20 are given to *tadavi*, the headman of the bride's village, including Rs. 10 as *coridapā* or booth-gift and Rs. 5 as a *tillā* or *tilak* that is browmark-gift . To the bride's father marriage costs Rs. 75 to Rs. 100 the whole of which is spent in feeding the liquor was freely used in the marriage ceremony; now guests are served with tea.

Death and Funeral.

Except in the case of a very young child or when the cause of death has been small-pox, the Bhils burn the dead, as they say with the sun as a witness, that is only during the day. When life is gone the relations bathe the body, spread a *dhotar* (waistcloth) over it and carry it on a rough bamboo bier to the burning ground. At the burning ground the chief mourners sit near the body, while the rest of the party gather wood for the pyre. The son or other next-of-kin sets the pyre alight. When the body is half burnt the mourners bathe. On the way back to the deceased's house the party rest half-way between the deceased's house and the burning ground, place five stones near each other, and to the branch of a neighbouring tree tie a small piece of the deceased's winding sheet. On returning to the deceased's house the party smoke tobacco for a short time and after saluting each other, go home. On the fifth day after death ten to twenty friends and relations if the deceased come to the place where the small stones were laid and eat boiled *ghugari* (maize). After the meal they throw away the stones and the piece of the winding sheet and return to their homes. On the fifth day as well as on the day of the *kaita* (death dinner) some Bhils have the special practice of shaving their mustaches. They give a *kaita* (death dinner) on the twelfth day like upper caste Hindus. Among the poorer Bhils the families of five or six deceased persons subscribe and give one combined death dinner, in some cases two or three years after the death. For this death-dinner a dish called *ghugari* made of Indian corn, gram and wheat boiled together is prepared. When the guests, who may number a hundred or more, come together, a Rāval pours a quart of milk into a metal salver and in the milk sets a brass horse. Two of the deceased's near relations squat down holding the dish at arm's length above their heads. Then while the Rāval plays a *tamburo* (one-stringed guitar) with a hand drum accompaniment, the mourners for an hour or two keep throwing into the dish money, rice and Indian corn. At last the salver shakes and the image of the horse falls on its side in the milk. The mourners weep and wail. In a leaf, each guest is given a small dole of boiled Indian corn, gram and wheat. When the meal is over all but relations leave, the Rāval taking his perquisites, the brass horse and the salver full of grain. The relations usually bring

a goat or young buffalo or a few yards of country cloth as a present for the son of the deceased. If they bring cloth it is given when the villagers leave; if they bring a goat or young buffalo it is at once beheaded and the head thrown on the roof of the deceased's house. The body is taken to a distance, cut up, cooked and eaten. If the deceased was a man of importance, his relations go to a stone mason a year or two after his death and make him cut on a stone slab the figure of a man on horseback with a spear in his hand, paying him but the gift of a cow or a she-buffalo. On the first *kālicaudas* (dark fourteen) of *Ashvin* the stone, with procession and drum-beating, is carried in a cart to the deceased's house, where it is washed, daubed with redpowder, covered with a white cloth and again placed in a cart, and taken to the village *devasthān* (spirit-yard). There a goat is killed, its blood sprinkled on the stone, and its flesh cooked and eaten.

Beliefs.

The two leading beliefs of Bhils are in witchcraft and the evil eye. As has been noticed above, almost all cases of sickness are traced to witches. As a witch alone is supposed to be able to eat fowl, Bhil women never eat either fowl or eggs. They even object to eat food which is brought in a vessel along with a fowl. To escape the influence of the evil eye, Bhils turn their backs to each other while eating or drinking. Except his wife and young girls no Bhil woman, even his sister or mother, will look at a sick or wounded Bhil. As a rule, women use neither the bow nor the sword. Only when the rains hold off and threaten scarcity, women go with bows and arrows to the shrine of the village goddess where they abuse the goddess, smear her idol with cowdung and sing, dance and leap as if preparing to commit a *darorā* (dacoity) by stealing a buffalo from the herd of the nearest village. On such occasions the herdsmen seldom offer any resistance. The captured buffalo is led in triumph to the goddess' shrine in the women's own village and is killed there with clubs and sticks. Round the dead buffalo the women dance and then distribute the flesh among themselves. Bhils say that the women perform this buffalo-killing ceremony to shame the god into pity and to convince them how hard the times must be which compel women to take to arms. Of the beliefs connected with driving or coaxing away a human or a cattle epidemic the chief are that the village headman or *patel* as representative of the village vows to wear no turban, to give up shaving his head, and sometimes to put on women's clothes. The headman asks the Baḍvā which of the gods is offended and what sacrifices should be offered to propitiate him. Sometimes to drive away an epidemic asses are made to plough a small plot of land. The people and the Baḍvā go to the shrine of the offended deity and place a small wooden cart near the deity, about a foot long, and a buffalo or a goat whose neck is decked with flower garlands, whose brow is marked with *kaṅku* (red powder) and whose body is covered with a red cloth. Before the deity the Baḍvā sings

until the cart begins to move of itself The motion of the cart is believed to show that the plague has entered the cart which with the buffalo or goat is lifted and driven out of the village in the direction shown by the Baḍvā. Overjoyed that the plague is leaving, the people follow dancing and shouting and beating their tomtoms. On hearing the procession coming towards them, the people of the next village march out with tomtoms to join the procession and take charge of the animal and the cart from the first party who return to their own village. If from the next village no people come out the first villagers leave the cart and the animal in this village, but this rarely happens as people are careful not to allow the plague to stay within their limits. The people of the second village take the animal and the cart to a third village and so on till a village is reached where no one comes to take charge of the animal and the cart. This happens only in the forest or in a deserted village. Often in this way the goat and the cart are escorted from village to village for forty or fifty miles.

Social Organisation.

Bhils respect three forms of authority, their chief, the headman of their settlement, and the council of five. In parts where quarrels between neighbours are not uncommon, the right of the head of the tribe to his clansmen's services is fully admitted. When he hears the *kulki* (shrill longdrawn cry) saying that the men of the village are wanted, a Bhil leaves any work he may be doing and attends the summons. On the other hand, if their chief uses his power in a way they dislike, they join together to resist him. Every Bhil settlement has its headman, *gamti* or *patel*. This office, which is generally hereditary, gives the holder a position of respect and makes him a referee in social disputes. Though in practice the rule is not always kept, the Bhil *pañcāyat* (council) should be entirely composed of village headmen. This council decides all marriage disputes, punishes breaches of caste rules and when the offender is penitent, fixes the amount of the atonement fine. Theft, robbery and other serious causes of quarrel, which are punished as crimes in the more settled parts, are adjusted by a system of fines. Murder is to some extent an exception, and as a rule the relations of the murdered man do not rest till they take the murderer's blood. Bhils pay special respect to the elders of their families. Unlike other Hindus a Bhil woman calls her husband's elder brother father instead of brother-in-law and her husband's elder sister mother instead of sister-in-law. A man gives the same titles of respect to his wife's elder brother and sister. As a mark of respect, a Bhil woman does not show her face to members of the house who are older than her husband. At the same time the older men neither touch the women's body, nor her cot, her clothes or her ornaments.

The village is a basic unit of their organisation. Most of the people of a village belong to a single lineage and are in control of the affairs of the village. Important problems of the village are discussed and settled by the *pañcā*. Disputes between parties are brought be-

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fore the *pañcā* which hears both the parties and gives its verdict which is binding on both the parties. Disputes arising out of adultery, elopment, marriages by force etc., come before the *pañcā*. In cases where different villages are involved, the entire village rises like one man. Sometimes this leads to bloodshed and feud. The *mukhi* of the village is the chief elder and the most influential man. His advice is generally sought for and is usually paid heed to. He represents his village in all its dealings with the Government. Now with changing times his influence is waning but still be is the most respected and influential man in the village.

Kāthoḍiā.

Kāthoḍias numbering 7878 in Broach district are a primitive tribe probably of Bhil origin, also known as Kātkaris and Kathoḍis in the Thana and Kolaba districts. The term Kathodias in Gujarat may be derived from *kāth* (catechu) and *vadi* (a cake), which would give the meaning "(seller of) cakes of catechu", the original occupation of the people now rarely pursued by them. Their peculiar dialect contains certain words common among Bhils and their customs, to some extent, indicate a Bhil origin.

The Kāthoḍias choose their settlements in the forest to suit their convenience, selecting a spot that promised good hunting or tillage, and leaving it as convenience dictated. Their dwellings are low thatched huts, square or rectangular, built of *kārvi* and mud.

The men generally have long matted hair and wild beards. Those living near towns shave the face and head, and wear a very marked top-knot. The chief peculiarity of the dress of Kāthoḍiā women is the number of bead necklaces they wear and the glass and metal bangles which cover almost the whole of the forearm. They wear a robe tightly wound round the waist and drawn up between the thighs. One end is thrown loosely over the shoulder, and the rest of the body and limbs are bare. Bodices are worn only on great occasions. They also wear long hanging ear-rings in both the top and bottom of the ear. The men wear a very coarse waist cloth or a *lungoti* and a waist belt of leather, or plaited grass or coloured cord, to which is attached their tobacco pouch and a wooden support to carry their sickle. Girls are tattood by professional tattooers at about the age of six.

There are five endogamous divisions among Kāthoḍiās, *viz*., Athavar, Dhed or Dhor, Sidhi, Son or Marāthā, and Varap, of which Sons and Dheds are extensively known. The Sons do not eat cow's flesh, and mix with caste Hindus, and the Dheds who are beef-eaters are socially the lowest of the tribe. The people have also a number of exogamous divisions represented by surnames. Dhed Kāthoḍiās have no restrictions on intermarriage among different families, while amongst Sons, marriage is prohibited between members bearing the same surname. First cousins are not allowed to marry, though second cousins may. Marriage is generally adult. Sexual license before marriage, is not recognised. Should a girl become pregnant before marriage, the fault would be condoned bv marriage, but the ceremony

would be performed by widow remarriage rites. A man of substance may take a second wife as an additional helper.

Kāthoḍiā women are known to be strong, healthy and hardy and pass through child-birth with little trouble or pain. It is said that sometimes when at work in the fields during the rains, pregnant women feeling birth pangs, retire behind a rice bank, give birth to a child and after washing it in cold water put it under a teak-leaf rain-shade and go back to their work. In ordinary circumstances, a midwife is called in before the birth of a child. She stays for five days and daily gives bath to the child and the mother. On the sixth day after birth, the goddess *Chathi* is worshipped, and some rice figures of the goddess are set on the ground with a lamp near them. The father or mother names the child and guests are fed on thick cakes and tea.

The marriage is performed by a Kāthodiā, who from his virtuous life has been chosen by the tribe to be the *Gotarni* (marriage priest). He and four elders make some designs with rice on a blanket. The bride and the bridegroom are seated on the design and they cover each other's heads with garlands. With distribution of tea to the assembled the ceremony comes to an end.

Remarriage of widows is permitted. The widow's intended husband presents her with a robe and bodice and glass bangles, and some money to her father. Next, he ties a *mithla* (a neck ornament) round the widow's neck and the widow puts a turban over his head, which completes tne ceremony. Divorce which is known as *dava* or *samjut* is allowed with the permission of the headman of the tribe.

Kāthoḍiās generally cremate their dead. When a person dies of cholera, he is buried until the outbreak of cholera is over; the body is then dug up and burnt. If the death happens at night, the funeral is put off till the next day. But the corpse has to be watched all night, and to cheer the watchers special music is played. On the upper surface of a common brass plate a lamp of wax is stuck, and in the wax a thin stick about nine inches long. When the finger and thumb are passed down this stick, it vibrates with a weird drone or hum. To this accompaniment the mourners chant all night long, crouching round a fire outside the house. On the third day after cremation the mourners visit the burning ground and gather the ashes, throw a little ash into the village and on the top of the ash-heap place some cooked rice. The chief mourner feeds young children on cooked rice in the deceased's name.

Kāthoḍiā are primarily animists. The percentage of literacy is not even one. They do forest work, mainly that of preparing charcoal. They are indifferent agriculturists. They also gather fruits and to some extent they are hunters. Their women work hard, both as labourers and in bringing into market the head-loads of wood their husbands have gathered in the forests.

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Dublā.

DUBLĀ, numbering 6,318 (1951), in Broach are also found in Surat and Thana districts. Their name is perhaps derived from Sanskrit *durbala*, a weakling. They are classed among the *Kāliparaj*, *i.e.*, dark race, a term commonly applied to the aboriginal tribes from Gujarāt. They have come into closer contact with the advanced castes and do not much differ in appearance from Kolis. They claim a strain of Rajput blood. There is evidence to prove that persons of higher castes such as Rajputs, Kanbis, Kolis, etc., keeping Dublā women were, at their desire and without any ceremony admitted in the Dublā community. Konknās, Naikḍās and Chodhrās were also admitted on payment of the cost of food and liquor served to those who assembled at the admission ceremony.

The tribe has about twenty sub-divisions, each deriving its name from some peculiarity of its own, e.g., the Bārṃiās perform funerary rites on the twelfth day after a death, Maṇvias under a *māṇḍav* (bower) and Talāviās on a bank of a *talāv* (tank). The Ukhārias and Coriās are so named on account of their performing the ceremonies on a *ukhār* (wooden mortar) and on a *cori* (altar). Several of the divisions such as Bulsāriā, Olpāḍiā, Damāniā, etc., are geographical, named after Bulsar, Olpad, Daman, etc. Of these divisions the Talāviās who are considered the highest in social rank, may take to wife the girls of the Sarāviās, but not give their daughters in marriage to them. With this exception the members of the sub-divisions seldom inter-dine and never inter-marry.

Marriage

The offer of marriage comes from the boy's father. The service is conducted by a priest belonging to the degraded class of Tapodhan Brāhmans, or by a casteman who knows the rites. The boy's father pays to the girl's father a certain amount known as *dej* which may sometimes be paid in the form of grain. The *khanḍāliā* form of marriage, *i.e.*, by serving the parents of the wife, also prevails among the Dublās. When the brides father is well-to-do, he selects a bridegroom and keeps him at his house. If the girl desires the match, she marries him with the usual ceremony. The bridegroom in such cases is termed *ghar jamāi* or *khanḍālio*.

Five days before marriage the bride and bridegroom are rubbed with *piṭhi* (turmeric paste). In the afternoon of the marriage day the bridegroom starts in a procession for the bride's house. He is led by the bride's father to the *cori*, a square place in the centre of the marriage booth. The bride is brought in, and the skirts of the bride's and bridegroom's dresses are tied into a knot. As the sun sets, the priest calls out three or four times, "*Sāvadhān, kāligranthi sāvadhān*" and joins the hands of the couple who then walk round the *cori* four times and are fed with sweatmeats and cooked rice. Then they make a bow to their patron deity. Walking round the *cori* and making a bow to the patron deity are supposed to be the binding portions of the ceremony. At night, men and women dance together, and the marriage ceremony closses with two dinners. one at the bride's and the other at the bridegroom's house.

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Widow remarriage is allowed. The ceremony is conducted by a remarried widow. A bachelor is allowed to marry a widow after first being married to a *shami* tree.

Both a husband or a wife may obtain a divorce with the permission of the headman of the caste and of the relatives. The party asking for the divorce has to pay to the other and to the castemen a certain amount customarily fixed. A woman divorced for adultery is allowed to marry a second time with widow remarriage rites.

Religion.

Dublās follow the Hindu law of inheritance. Primarily they are animists and believe in witchcraft, sorcery and magic. They engage a *Bhagat* (sorcerer) to drive away diseases, who works out the cure by means of a broom made of *nimb* leaves. They worship the images of their ancestors prepared of sandal wood and called *khatruns*.

Holidays.

Their leading holidays are *Mātāni Athem* in the month of *Āso*, *Holi* in *Fāgun*, *Divāli* in *Kārtak*, *Makar Sankrānt* in *Posh*, *Divāso* in *Ashādh*, and *Balev* in *Shrāvan*. The *Divāso* holiday is specially observed by the Dublās. On that day they make dolls and puppets and marry them. During *Navrātra* they dance the *Gheriā* dance. Dressed in the skirts of women and above waist like men, with jingling bells tied round the waist and a stick held in the hands they dance from door to door collecting subscriptions from householders.

Death and Funeral.

Except a few of the poorest who bury, Dublās cremate their dead and perform obsequies like other lower Hindu castes of the region. When funeral ceremonies are not observed owing to the poverty of the relations, they bathe at the time of *Holi*, *Divāli* and *Divāso*, and before taking food make offerings of a portion to cows. This is known as *pandādu mukna.*

Every year in the month of *Caitra* or *Māgh* the following ceremony is performed for the pacification of the *manes* (defined ancestors)

A devotee called *jangio* is called. He becomes possessed and utters the names of the deceased ancestors. The members of the family then go to the bank of a river and burn images of *kush* grass in the name of the deceased ancestors. After their return home, funnel-shaped earthern pots are filled with water and placed on the ground, one in the name of each ancestor. If the deceased be a male, the earthen jar in his name is covered with a white piece of cloth, if a female, with a red piece. The mouths of the earthen pots are closed with small earthen cups, and over these cups small earthen pots are again placed. Then the devotee nods, and taking in succession the name of each of the deceased ancestor, says "I, a certain ancestor have come". After each time he has repeated a name, the devotee is given water and liquor to drink and a little food to eat. After this is over, all the jars are emptied and the ceremony ends. The Dublās believe that only by the performance of this ceremony the deceased ancestors become satisfied. In some places,

wooden images are made in the name of the deceased ancestors; they are dressed in clothes and smeared with vermilion. In the morning of Sundays and Tuesdays the images are worshipped with offerings of goats, fowls, toddy and liquor.

Tadvi.

TADVI, who number 14,021 in Broach district (1951) are also found in the Baroda district in good number. They are as the name implies a sub-caste formed by fission *(taḍ)* from the great Bhil tribe. The details of how the fission arose are not so far available. Mr. Enthoven regards them as descendants of Bhil women and Musalman men and traces their origin to Aurangzeb. But there is no reason to treat them on that account as Musalmans. Possibly Mr. Enthoven was not referring to the Gujarāti Taḍvis who have no connection with the tribe of the same name found at the foot of the Sātpuḍā Hills in Khandesh. Gujarāt Taḍvis are all Hindus.

They worship Śankar (Mahādev) and have special reverence for Śrī Kṛṣṇa Bhagwān. They pay court also to the Sun, and to all Mātās. They call in Brāhmans of the Nandora section for their marriages and Kayatia Brāhmans for their funerals.

To mark the beginning of marriage ceremonies, they make a drawing of Gaṇapati with *geru* (ochre), propitiate the planets and tie the *choli* bands. They sing marriage songs in Gujarāti which is their mother tongue. They allow widow marriages and divorce; social disputes are settled through a caste *pañca* and divorces are decreed. No money to the bridegroom has to be paid, but the *pañca* requires a fee of Rs. 12 out of which Rs. 5 are paid to the officiating Brāhman.

The *nātra* ceremony is less formal, not always requiring the presence of a Brāhman. All that is required is that the couple throw rice at each other in the presence of the caste *patel*. Festivals like *sitalā sātam* (to propitiate the small-pox goddess), and *janmaṣṭami* day (Sri Kṛṣṇa's birth day) are generally observed.

There is a caste organisation in settled villages, which is called a *nyāt patel*, chosen from among the fittest families, but there is no such thing as *kul*.

They burn or bury their dead, according as their circumstances permit. If cremation is followed, then a Brāhman is called in, who offers *piṇḍas* and is paid Rs. 25 to 30. Where burial is practised, there the ritual is less expensive and formal. Dead bodies are buried usually on the banks of the Narmada; and *kasumbo* (opium juice diluted with water) is drunk copiously. While burying, the head of the corpse is placed towards the north; if the corpse is that of a male, it is swathed in white, if of a female, it is wrapped in *lāl shelu* (red covering cloth).

Talāviā.

TALAVIA, numbering 7,878 in Broach district is originally a subdivision of Dublās now grown into an independant caste with them. They are all Gujarāti speaking. Talāvia consider themselves hypergamous to other Dublās, and seldom eat with them or intermarry

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with them, although they acknowledge their connection. They look down upon Bhils and have no social dealings with them. They marry amongst themselves. The prospective son-in-law has to pay Rs. 25 to the bride's father for marriage expenses. Rs. 1-4-0 worth of cloth and 12 annas worth of *choli* are his gifts to his bride. No other ornaments are needed. In other respects their marriage costs them little, as the Brāhman lets them off lightly charging them from 8 to 12 annas. They are, worshippers of *Verai (vihat) mātā*, the goddess also of Rajputs, Vaghris and other communities Brāhmans are required for doing *pūjā* and applying *sindur* (red paint) on to the stone image of the Mātā. They have a vague notion of god and of Rāma and other Hindu objects of veneration. But they worship the sun every morning. Their women fast on full moon days and worship the moon. In the *navarātra* days (sacred to the Mātā) they sow paddy seeds and other corn and observe fast.

They bury their dead as they are too poor to afford the cost of burning. The corpse is buried in a lying position (an hour after death) with the head pointing to the north. No further ritual is observed. Only the women wail. Their *gor* is an Audich Sahasara Brāhman who is looked down upon for ministering to these people.

Valvi.

VALVI, numbering 1,716 in the Broach district, are a forest tribe probably a degraded sept of the Gamit tribe. They must not be confused with Valva or Valvadi sub-section of the Chodhras. Economically they are perhaps the most depressed of the *Rāniparaj*.

Vasāvā.

VASĀVĀ, numbering 5,180 in Broach district, is an early tribe sometimes called Vasavadā. They are also found in Baroda district. Enthoven calls the Vasāvā "a sub-division of Dublās and Bhils", and the Vasāvdā "a Synonym for Vasāvā Dublās." They cannot be a sub-division of both the Bhils and Dubla, at the same time, It is likely they are a turbulent section of the Bhil race and have nothing to do with Dublas who are content to remain as weaklings and obedient serfs. The people claim that they are a settled branch of the Bhils as they have settled in permanent hamlets of the district. Their males put on *dhotees* or *payjama*, a jacket and a turban. But one of their peculiarities is worth noting. Whenever a new garment is brought for the wife the husband tears off a piece from it sufficient to cover his nakedness. This piece is kept hanging from the thread on his waist at day time and is made to cover up his loins at night. The females wrap a piece of cloth round their lower limbs and put another on the head. They begin to put on a bodice only when they go to their husbands. They wear necklaces of white stones and two anklets of brass on each leg.

When a boy reaches a marriageable age, his parents and relations go out in search of a wife for him and take him along with them. If the boy likes the girl shown to him by his parents, his father agrees to pay from Rs. 22 to Rs. 30, and settles a day for the marriage and they return home. A day previous to that fixed for

the performance of the ceremony, the boy and his parents, relations and friends go to the bride's village and put up for the night outside the village; there they dance the whole night. Next morning they go to the bride's house, where a bamboo is held lengthwise between the bride's and bridegroom's parties and dancing commences. After a time when two pice are given to the girl's party by that of the boy, the bamboo is removed and both parties dance together. Then, a new garment in one of the corners of which are tied a rupee and four pice is given to the bride by the bridegroom. Both are then anointed with oil and turmeric powder and are placed on the shoulders of two men, the boy with a sword and the girl with its sheath. Both of these men dance with the human burden on their shoulders for a time and then put them down. After that, they all sit down to dinner, after which, the groom and his party return home taking the bride with them. When nine days have passed after this auspicious event the leading men of the village of the bride's parents go to her husband's house and dance in front of it without speaking, until a rupee is given to them by the boy's father. Then they speak with him, dine at his house and return with the girl to their village. The system of *Khandhāḍio*, as well as remarriage and divorce, obtains among these people.

No sooner a Vasāvā dies, a match-lock is fired. The dead body is then placed on a bedstead and carried in procession to the burning ground with music playing and match-locks firing. Then the pyre is erected, around which the dead body with the bedstead is taken seven times and is afterwards placed on the pyre. Food is placed in the mouth of the deceased and his usual implements and weapons are placed by his side. The body is then burned and the mourners bathe and go home. In the evening they again assemble and eat together. This being over, a relative of the deceased gets up and pierces an adjacent tree with an arrow to mark the completion of the funeral ceremonies.

They do not perform menstruation and pregrancy ceremonies at all, but give a small feast on the fifth day after the birth of a child and then give a name to it.

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The Muslim section of the population, according to the 1951 census, numbered 114,025 souls (*m.* 58,494; *f.* 55,531) or 16.15 per cent of the entire population of the district.

Population.

Their tract-wise distribution over the district is as follows :

Rural Tracts: 77,963 (*m.* 39,796; *f.* 38,167)—*Broach*, 28,902 (*m.* 14,630; *f.* 14,272); *Nandod, Jhagadia, Dediapada, Valia* and *Sagbara*, 7,751 (*m.* 4,174; *f.* 3,577); *Ankleshwar, Vagra, Jambusar, Amod* and *Hansot* 41,310 (*m.* 20,992 ; *f.* 20,318).

Urban Tracts: 36,062 (*m.* 18,698; *f.* 17,364)—*Broach* and *Nandod*, 20,313 (*m.* 10,559 ; *f.* 9,754) ; *Ankleshwar, Jambusar, Amod* and *Hansot*, 15,749 (*m.* 8,139; *f.* 7,610).

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Population.

In the urban areas, their percentage to the local population is 28.7, whereas in the rural areas it is only 13.5. However, the majority of the Muslim population, *viz.*, 68.3 per cent live in rural areas, and the rest in urban areas. The population has varied as much as 8.59 per cent (1872), 21.7 per cent (1901), 22.1 per cent (1911), 23.1 per cent (1921), 24.1 per cent (1931) and 24.6 per cent (1941) through the decennial stages since 1901. The steep decrease in the percentage in 1951 is due to the merger of Rājpiplā State in Broach District.

The 1901 census records the following sub-divisions among the Muslim population of the Broach district: Arab (2,280), Sayad (2,256), Unspecified (24), Bhāṭ (44), Bhavasār or Chhippā (217), Bhavayā or Targula (1), Bhisti or Pakhāli (49), Bohora (31,124), Dhobi (1), Fakir (2,130), Gandhrap (7), Gārudi (57), Hapsy or Siddy (221), Jalaha (2), Kāgadi (7), Kasai or Khāṭik (133), Khārvā (131), Khatri (22), Machchi (2), Memon (211), Mochi (30), Mughal (473), Molvi (3,740), Momnā (15), Nhāvi or Hajām (200), Pathān (3,140), Pujāri or Nadaf (1,460), Rangāri (20), Sheikh (12,191), Shimpi or Darji (4), Tai (72), Teli or Ghāñci (672), Unspecified (3,863).

Groups.

The community as a whole could be grouped in three well defined groups :

(1) Immigrants and their descendants known as Sayads, Shaikhs, Mughals, Pathans, Bohoras, Memons and Khojahs.

(2) Hindu converts marrying freely with other Mohammadans.

(3) Hindu converts retaining their former prohibitions of marriage outside the caste.

Both the leading forms of the Musalman faith, the Sunni and Shiāh, are found in the district, the former being more common than the latter. According to 1931 census, out of the total Muslim population of 80,502 in Broach district, 77,240 (*m.* 40,224; *f.* 37,016) were Sunnis, and 3,262 (*m.* 1,747, *f.* 1,515) were Shiahs. Except some of the Sayads, Mughals of Gujarat, the trading Bohoras, the Tais and some of the Momnas who are Shiahs, all are Sunnis.

Religion
Sunnis and Shiāhs.

The main point of difference between the two great divisions is that the Sunnis consider Abubakar, Umar and Uthmān the lawful successors of the Prophet, while the Shiāhs espouse the cause of Ali the fourth Khalifa and his sons Hasan and Husein. In consequence the Shiāhs omit from the Korān certain passages alleged to have been written by Uthmān and add a chapter in praise of Ali. Further they follow the precepts of Bārā Imām or twelve Imāms instead of the four Imāms and claim that their *mujtahids* (religious superiors) in Persia have power to alter the spiritual and temporal law. In practice some sects of Shiāh differ from Sunnis, chiefly because they count the month from the fading of the old moon and not as the Sunnis do from the shining of the new moon. They pray thrice instead of five times a day, and in praying hold

their hands open by their sides instead of folding them below the breast. Except these and few other particulars the belief and customs of the rival sects are the same, and at least among the more educated the difference of faith does not prevent friendship or even marriage connections.

Food.

An animal becomes a lawful food for Muslims only if it is killed by cutting the throat and repeating at the time the words, '*Bismillāh Allāho Akbar* (in the name of God, God is great).' If this invocation is repeated at the time of discharging the arrow or firing the gun, 'the kill' becomes a lawful food. Fish and locusts may be eaten without being killed in this manner. Cloven-footed animals, birds that pick up food with their bills, and fish with scales are lawful but not birds or beasts of prey. Swine's flesh is especially prohibited. Muslims eat freely of mutton and fish when they can afford it, but some may abstain from beef and even chickens.

Broach Muslims are fond of good cheer and good living as is the case generally with south Gujarāt Muslims. A rich Muslim takes three meals a day. A seven o'clock breakfast of tea or coffee and sweets : a midday meal of *roṭali* (unleavened bread), *kālia* (soup), *kimā* or *kofta* (minced meat), *malāi* (cream), vegetables and sometimes rice, with tea or sometimes *sherbat* (sugared water) : and at about seven, an evening meal of rice, *khicāḍī* (rice and pulse) or *pulāo* (rice and meat), with *ghee* and some kind of meat or fish or *kaḍi* a dish made of curds, mangoes, lemons or plaintains, and in some families *sherbat* (sugared water). The middle class Muslims also take three meals a day : an early morning cup of tea or coffee with or without a special kind of wafer-bread ; a *nāṣṭā* (regular morning meal) at eleven o'clock of *roṭali* (unleavened bread) and mutton with or without vegetables or cream ; and a *khānā* (evening meal) at about six o'clock of rice and *ghee*, and mutton-soup, or *khicaḍi* (rice and pulse), and curds, or mutton-soup or *kaḍi*, that is curds and whey, gram flour, and turmeric. A poor Muslim who cannot afford the luxury of morning tea or coffee has his breakfast at about eleven of *roṭalā* of *jowar* or *bajri*, fish and *dāl* (pulse and water); for dinner, about seven in the evening, rice and pulse with a little *ghee*, and as a relish onions and chillies and water. Where he can easily obtain fresh fish the poor Muslim lives almost wholly on fish and *jowar* bread or rice and pulse.

Among Muslims almost every feast day and holiday has its own dish and on Thursdays there is generally something special for the evening meal. Of holidays that have special dishes, the 5th of *Muharram* is celebrated with a dish of rice and curds with milk, *sherbat* (sugared water), and *chungās* (fried bread and sugar) ; the thirteenth of *Safar* which is a Muslim picnic-day, has its *talan* (fried pastry). On the first twelve days of *Rabi-ul-awwal* which are held sacred to the Prophet, sermons are preached and several doles of rice and meat *biryāni*, or *khir* (rice and milk pudding) or *pawwā*

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(parched and sweetened rice) are distributed among the congregation. The eleventh of *Rabi-ul-Akhir* has its feast of *malidā* (pounded and sugared bread). On the evening of the thirteenth of *Shaaban*, *chapatis* and *halwā* (bread and sweets) are given to relations. *Shir-khurma*, a dish of milk dates raisins and vermicelli, mutton-soup and bread are relished on the first of *Shawwal*. On *Bakri Id*, the tenth of *Zil Haji* goats and cows are sacrificed and presents of their flesh made among friends and relations and dressed into several dishes and eaten. In south Gujarat *methi-ki-khicaḍi*, a dish made of fenugreek seed is relished in the cold weather; so also a stew of potatoes. French-beans and mutton is eaten with wheat bread and washed down by *nirā* (unfermented palm juice.)

Gujarat Muslims are fond of giving public dinners and among the rich every important family event from birth to death provides an excuse for it. There are three chief classes of such public dinners, *biryāni, dāl bhāt* and *khaṭṭā*, and *pulāo*. Of these the first and best, chosen regardless of cost by the dinner-givers, is *biryāni* with *zardā*. *Biryāni* is the chief dish, saffroned rice with mutton, eaten with curds or with some mutton and vegetable soup. It is accompanied by *zardā*, saffroned and sugared rice with sultāna raisins and almonds. A richer sweet dish is *muzaāfar shola*, saffroned rice slightly acidulated with limejuice, and having more sugar, sultāna raisins and almonds, and sauce of *ghee* If not by one of these two dishes, *biryāni* is accompanied by *Sātwāni miṭhāi*, the seven sweets specially ordered from a Shiāh Bohora confectioner whose cookery is famous for its flavour and delicacy. The next kind of dinner is *dāl bhāt* and *khaṭṭā* that is pulse rice and tamarind soup. The sweet dish accompanying it is rice and sugar *choba* and a large quantity of *ghee*. The last class of dinner is rice and mutton *pulāo* and some vegetable soup. If there is no mutton the dish is called *korma* and is thought mean. Along with it *zarḍā* (saffroned rice) is served.

Holy days.

Except *Muharram*, *Ramazan* and *Bakr* festivals which are common to both the Sunnis and Shiāhs, the two sects keep different holy days. They are as follows :

In the beginning of the year comes the month of Muharram which is held particularly by the Shiāhs in peculiar veneration as being the month in which the Imams Hasan and Hussain, the sons of Ali, were killed. Their deaths are the subject of public mourning during the first ten days, when fasting and self denial are also enjoined. But among the Sunnis after the fourth day the mourning changes to frolic and mummery. Some go about in bands richly and curiously dressed, singing with or without the accompaniment of a *dhol* (drum) and guitar the story of Hasan and Hussain's sufferings and death. The lower classes, in fulfilment of a vow, dress their children in green like religious beggars or paint themselves as tigers or in some other grotesque guise, and beg from house to house. Others again make themselves *dūlhās* that is bridegrooms. A hole

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is dug about a foot broad and a foot deep in which fire is kindled and the person who has vowed to become a *dūlhā* goes round the fire seven or eleven times. Incense is freely burnt before the person and his friends gently fan him with a bunch of peacock-tail feathers set in a silver or iron wand. The people around keep up a chorus of '*dūlhā, dūlhā, dūlhā, dūlhā*' to the measure of which the person wishing to be possessed sways at first in gentle and by degrees in more violent oscillations. When the full power of the *hal* (breath) fills the devotee, that is when his eyeballs turn up and become fixed in a stony stare and his body grows cold he is made to keep his face bowed among the peacock feathers. After a while the spirit seizes him and he rushes out heedless of water or fire. As he starts one of his friends holds him from behind supporting and steadying him, he guides the *dūlhā's* aimless impulse to the *akhāḍās* (places) of other *dūlhās* and *Taāziahs* where fresh incense is burnt before his face. On his way from place to place the *dūlhā* is taken for blessing children or the casting of *ginn* or other evil spirit. On returning to his own *akhāḍā* (place) the *dūlhā* falls senseless and after remaining in that condition for a hour or two regains consciousness.

Another activity in the Moharram festival is the preparing of *Taāziahs* or *tābuts*, bamboo and tinsel models of the shrine of the Imam at Karbālā, some of them large and handsome costing a few hundred rupees. These shrines are kept in their houses for several days, and on the night of the ninth are taken round the chief streets. Poor Hindus and Muslims, men and women, in fulfilment of vows throw themselves in the roadway and roll in front of the shrine. On the tenth day, with much show and noise, the owners of the shrine forming a procession take them to a river or lake to cast them into the water. Sweet-bread and sugared-water is distributed among friends in the evening.

Unlike Sunnis, Shiāhs keep Muharram for forty days. Of these the first ten are a time of special mourning. A band of Shiāhs dressed in black and with bare feet take in a procession Hasan and Husain's standards from the Imāmwāḍā to the house of some one who has made a vow. There a *maulvi* may deliver elegiac discourse *(waāz)* describing the martyrdom of Husain and the sufferings of the martyr's wife and little children which the hearers respond with signs of utmost grief. The service lasts for about an hour and after some spiced-water and *halwā* (mourning-sweet), the guests take their leave.

Among Sunnis the *ashura* (tenth day of Muharram) is held sacred in honour of the creation of Adam and Eve.

On the tenth of *Safar*, Shiāhs repeat dirges and offer prayers for the souls of Hasan and Hussain.

The thirteenth of the same month is known as *Terā* or *Talan Tezi* and kept by Sunnis in honour of the Prophet's recovery from a severe sickness.

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The Ākhari-chār-shambah, also called *chhelā Budh*, is celebrated on the last Wednesday of the month of *Safar*. Muslim townspeople fry sweetmeats and go picnicking in the fields and gardens outside the city in memory of a recovery of the Prophet from a dangerous illness. Another important day is the twelfth of the month of *Rabi-ul-avval*, the *Wafāt* or day of the Prophet's death. In the evening *khir*, a dish of rice and milk of which the Prophet was fond, is cooked and prayers are offered for the Prophet's soul. The orthodox visit the mosque and make their devotions to the sacred relic of Prophet treasured in the mosque. The seventeenth of the same month is observed to mark the *Maulūd* or birthday of the Prophet by feasting and giving presents. The *Gyārvi* festival falls on the eleventh day of *Rabī-us-sāni* on which Sunnis celebrate the birth of Sayad Abddul-Kadir Jilani by illuminating their houses and eating *malidāh* (powdered-sugared-bread) at night. On the first eleven nights of *Rajab*, in honour of the Prophet's birth, *waāzes* (sermons) are preached and *maulūds* chanted among Sunnis. Great numbers attend and on the eleventh day, charitable people give a morsel of sacred food called *tabarruk* to every one present. The *Shab-i-Barāt* which falls on the night of the fourteenth day of *Shābān* is among Sunnis characterized by the preparations of special dishes, which are distributed to the poor after the recitation of the *fatiha* (prayers for the dead) and by feasting of friends and relations. Greater than this festival is the *Id-ul-fitr* commonly known as Ramzān *Id** which falls on the first day of *Shavvāl*. Throughout the preceding month of Ramzān a general fast is observed, prayers known as *taraveh* are offered in the mosque and *Korān khani* is recited. *Ramzān Id* marks the close of the fast, and in consequence Musalmans — Sunnis and Shiāhs — of all ages and both sexes bathe, put on new clothes, perfume themselves, repair to the mosque, and thereafter foregather with friends and relations and bid them God-speed. Between eight and twelve the men form a procession and escort the *Kāzi* or other Musalman of high position to the *Idgāh*, the place for special Id prayers, most of them repeating mentally the glorification of the name of Allah. The prayers at the Idgāh lasts for an hour and a half. It includes an Arabic sermon in praise of the Id which the *Kāzi* reads standing on the pulpit, wooden staff in hand in imitation of the Prophet. When the prayers and serman are over, the people go home and spend the rest of the day in feasting, making presents and paying and receiving visits. The following day, known as *Bas-Id* is also a gala-day for Muslims. The *Id-i-Baqr* falls on the tenth day of Zilhejj and is characterized, like *Ramzān Id*, by prayer in the mosques. The whole body of Sunni Muslims go in a procession to the Idgāh to offer prayers. When the prayers are concluded, those who can afford it, offer *qurbānis* (sacrifice) of goats and send presents of the flesh to relations and friends. *Zakāt* (alms) are generally given about the time of *Bakr* festival.

*Shiāhs differ from Sunnis in keeping the Ramazan Id a day sooner and in not going to the Idgah.

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The eighteenth of *Zilhejj* is a great Shiāh holiday known as *Id-i-ghadir* or the lake holiday. On this day the Prophet seated by a lake proclaimed in a joyous moment that Ali was his own flesh and body. The Shiāhs also observe the twenty-eight of *Zilhejj* as a festival of three days in memory of Bāba Shujā-ud-din Abu Lūlū, a fire worshipping convert to Islam, who on this day murdered the Khalīfah Umar.

Beliefs and Practices.

Belief in the unity of God; in his angels; in his books, the Jewish, Christian and Mohammadan scriptures; in his prophets; in his government of the world; in good and evil as coming from Him; and in the day of resurrection, are the chief articles of a Muslim's faith. A Muslim should pray five (Sunni) or three (Shiāh) times a day, give a part of his goods to the poor, fast in the month of *Ramazān*, and make a pilgrimage to Mecca and if a Shiāh to Karbala and Shah Najaf if he has no debt and is rich enough. Muslim worship consists of a number of bows and prostrations accompanied with prayers and verses from the Korān.

Though as a body not very zealous, Muslims are on the whole careful to observe the chief rules of their faith. Few of them go to the daily public prayers, but the Friday service is well attended. All who can afford it give alms freely. Among the women, a few, chiefly unmarried daughters of Sayads and some Shaikhs, and many of the trading Bohoras, both Sunnis and Shiāhs, are well taught in the Korān and other religious books.

Customs.

The rites and ceremonies which a Muslim observes relate to incidents in life such as pregnancy, birth, naming, initiation, betrothal, and death. They are described below as followed by Muslims in general and Sunnis in particular.

Pregnancy.

The prospect of leaving no issue to perform the *fātiha* or the *darūd* on his behalf and be eternally damned is felt with horror by a Muslim. And so, after a year or two of married life, if the union is not blessed by an issue, Muslim women sometime resort to remedies to obtain children. Saints, living or dead are appealed to, the former to bless by giving charms or medicines to the wife who yearns to be a mother. *Amils* also give charms, written on a piece of paper to wash in rose water and drink. Some exorcists give their applicants cardamoms or cloves or pieces of candied sugar on which mystic and powerful names of God have been blown. Others direct strands of thread to be worn round the abdomen or the neck; others again simply write or trace some name or charm of words with the tip of the finger over the womb of the woman or the loins of the man. Some dead saints have a reputation as child givers. To tie knots on bits of string or ribbon with one end attached to a post or pillar supporting a canopy over a saint's grave or to a trellis or balustrade around a shrine is considered by barren women one of the surest means of obtaining an issue. Children born deformed or with

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one or two teeth are supposed to exercise a baneful influence over their parents and near relatives.

The great event of pregnancy is the *sātmāsa* or the *navamāsa* (the seventh or ninth month) celebration. It is held with different rites in different families, but usually it is the season for the fulfilment of all vows for the preservation of the foetus and the safety of the child and its delivery.

Birth.

After the pregnancy ceremony the wife goes to her father's house and stays there till her confinement is over. The servant who first brings the happy tiding of the birth of a child is often rewarded by the master. Boy or girl, the new born child is laid in a bamboo *suplā* (winnowing fan) while the more pressing needs of the mother are being administered. A piece of new red cloth is wound rather tightly round the little one's head, it is given a bath, and the father repeats in its ear the call to prayer, *azān*, beginning with the words *All-o-Akbar.* To armour against the evil eyes, pieces of black-thread may be wound round its wrists and ankles, eyelids stained with soot made of *ghee* and lampblack and dots of a lampblack made on the little cheeks, palms and sole. Every morning and evening frankincease and the *rai-ispand* (mustard and henna seed) is passed seven or nine times over the mother and the child from head to foot, and thrown into the fireplace and burned. During the five days before the *chatti* (sixth-day celebration) no fire or salt or water is to be given to any one from the house in which a woman is confined. To harden the child cold water is sprinkled over it before the bath and to accustom it to noise a copper or brass dish is struck at its ear.

Naming.

Early in the morning of the sixth day the child is named. In the evening of the same day the husband's kindred go to the wife's father's house with presents for the child. In the women's apartment the child and its mother are dressed in their best and the midwife makes a six cornered lamp of flour with as many wicks as corners. This is lighted, fed with *ghee,* and kept in a plate along with parched rice or *jovari,* and fruit. The husband's friends then offer the presents and the young mother is led to a casement and made to count seven stars. The sixth-day ceremony may include propitiation of the female relatives that have died in child-birth. Food untouched by unclean persons is cooked and the *Fatihā* repeated for the souls of the women who have thus died, and food is distributed to the poor.

On the seventh, fourteenth or twenty-first day after birth comes the purely Mohammadan rite of *akika* sacrifice which has two parts, namely, the shaving of child's head and the killing of one or two goats. On the fortieth day, in honour of the mother's recovery and as a thanks-offering to Khāja Khizr or Elias* *nāos* (grass boats) are ceremonially set adrift in water. The ceremony of *botan* (mutton

*Khaja Khizr is the water genius, the Patriarch Elias, skilled in divination who discovered and drank the water of life..

sucking) is performed when the child is four and half months old and is able to take a stronger food than milk.

The child's first birthday known as *sālgirāh* is the next time for merry-making. Generally only female relations and sometimes men are asked that day and given a dinner, the latter afterwards entertained by professional musicians.

Customs. *Initiation.*

When a child, whether a boy or a girl, has reached the age of four years, four months and four days comes *bismillāh*, the taking the name of God, a ceremony no Mohammadan neglects. A feast is held to commemorate the occasion and the child is made to repeat, after the priest, the opening chapter of the Korān.

Circumcision.

The *khatna* (circumcision) comes when the boy is sixth or seven years old. In north Gujarat the ceremony may be neglected till an age bordering on puberty, when it is performed with a pomp and circumstance almost equalling those at a marriage.

The First Ramzan Fast.

After circumcision come rejoicings and a dinner in honour of a boy or girl keeping their first *Ramzān* fast. It is said that the merit of a boy's or girl's fast passes to their parents and a child, if strong enough to bear the privation, is made to fast one day in the *Ramzān*.

Soon after the first *Ramzān* fast, when its Korān lessons come to an end, the child's parents give its teacher *hadya* (a present). A feast is held that day, the child repeats the beautiful chapter LV from the holy book, and parched rice, almonds and walnuts are distributed among children.

Marriage.

Marriage between cousins, both parallel and cross, is not prohibited among the Muslims and a marriage with the first cousin is preferred. However, sister's daughter is under incest taboo and one cannot marry his foster-mother or foster-sister, unless the foster brother and sister were nursed by the same woman at intervals widely separated. Polygamy is permitted to the number of four wives, but is rare in practice. A man may not marry his wife's sister during his wife's life-time unless she has been divorced. Divorce is at the option of the husband, but among higher classes is resorted to only as the last resort, both the parties to it being looked upon with opprobrium. Widow-remarriage is practised, and a widow can marry her deceased husband's brother or relative and so a widow his deceased wife's sister or relative. A Mohammadan cannot marry a polytheist, but he may marry a Jewess or a Christian.

When their sons reach manhood parents generally consult professional matchmakers who are often women (and free to enter the houses even of the strictest). At their suggestion the women of a lad's family to approve of the bride pay a visit to her house and have a talk with her. If they think well of the girl they accept the glass of *sherbat* offered to

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them, and to indicate that they ask the girl in marriage, they drop some sugarcandy in her mouth. They then talk of ornaments and fix the day of betrothal. On the betrothal day, both at the boy's and girl's houses, there is a meeting of the kith and kin. In the evening women of the bridegroom's family and a gay procession of children of their relations and friends go to the bride's house with ornaments and sweetmeats in covered trays. There they deck the bride with the ornaments, put the troth ring on her finger and cover her with a *dupaṭṭā* (scarf). Then after drinking *sherbat* (sugared water) and coffee and getting flowers and rosewater they leave, taking with them trays filled with fresh presents, a handkerchief, a ring, a *mandil* (*jari*-turban), and sweetmeats. Except when things are hurried and the betrothal and marriage take place at the same time, the period between them lasts for at least a year and during the time on every holiday gifts pass between the betrothed couple.

Some Hindu rituals and customs still linger in the marriage ceremonies of the Muslims of Broach particularly among those who were Hindus before their conversion. But, during the last fifty years, the influence has considerably dwindled and the ceremonies have been much simplified.

Some months before the marriage day smaller articles of the bride's dress are made ready by her female relations. Two or three days before the marriage, both at the house of the bridegroom and the bride, a store of earthen pots is laid in, the pots then arranged in a temporary booth in front of the house or in the inner apartments, food is laid on the pots to please ancestral spirits and *fatihā* (the opening chapter of the Korān) is repeated. Seven *suhāgans*, that is married women whose husbands are alive then rub the bride or bridegroom with *ubatnā*,* and apply a paste of henna leaves to their hands and feet. Women relations of the family or hired female musicians sing songs while this ceremony is performed. When the seven matrons have performed their task, a knife, a dagger or other sharp iron instrument and a lemon are handed to the bride or bridegroom which she or he is to be careful to keep till the bath on the marriage day. During these days, to keep off the evil eye, a bracelet or garland of gold must also be worn, and *domnis* (hired female singers) sing seven songs called *tonas* which are said to possess special anti-magic and anti-spirit power. The bride and bridegroom's houses are put in order, painted or whitewashed and a decorated booth is built outside of each house.

On the evening of the marriage day the bridegroom's party forms a procession called *bari* or *sachak* carrying in trays gifts of sweetmeats, dried fruits, ornaments and articles of dress to the bride's, and the company goes back with their trays refilled with

* It is a cosmetic preparation the chief ingredients of which are : flour of washed wheat and *mung* (Phaseolus munga). turmeric and sesamum oil.

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clothes for the bridegroom, with *mendhi* (henna-paste) and with *jahez** (wife's chattels). On their return the bridegroom is dressed in his wedding clothes, and the furniture of what is to be his room is set in order. At nightfall an occasion of much merriment arises. The bride's sister comes to apply henna to the bridegroom's hand. A screen is held between her on one side and the bridegroom and his friends on the other, all of whom proffer their hands from under the screen. The lady trusting her wits tries to adorn with henna the rightful hand and punishes others with a pinch. Her mistakes are greeted with much laughter and success rewarded with a present.

When this play is over, the bridegroom's guests sit listening to dancing girls or a company of hymn-singers called *Mauludias* who sing mauluds. At the close of the singing party coffee or warm sweet-milk and sweets called *batāshas* are served to the singers and hearers.

About ten, the time comes for the bridegroom to fetch the bride. Dressed in his wedding dress and with a *sehra* (flower-sheet) fastened round his head he rides on a horse, and with much music to accompany and followed by all his friends, he starts for the bride's. The women-folk from his side follow the procession in closed carriages and on their arrival at the bride's they retire to the ladies' quarters. The men of the bridegroom's party when they arrive, seat themselves in the brightly lighted marriage hall, the bridegroom's party ranged on one side and the bride's on the other. In the space between are three seats; one in front of his party for the bridegroom, one in front of the bride's party for her agents, and the third between the two for the *Kāzi* (registrar) or his agent. The bridegroom is led to his seat and the bride's agents find their way to theirs. Then the registrar, seating himself, asks the bride s agents whether she, with the certain portion of *meher* (dower) accepts so and so as her husband. If told she will have him, he takes the declaration of two other witnesses. He then makes the bridegroom repeat the creed, puts to him the same question. The proceedings are recorded, and the guests raising their hands, offer the marriage thanksgiving. When the ceremony is over the registrar receives a shawl and his fee, and leaves the house after partaking of the marriage sugarcandy, trayfuls of which are then distributed among all present. The hired dancers and musicians then start entertaining the assembled who pass their time listening till the bridegroom is called to receive his bride. A dancing girl stepping backwards, singing and keeping time by beating the bridgrooms with flower twigs, slowly leads him to the ladies' quarters. Soon the bride, veiled and arrayed in her wedding garments, is led by one of her relations and seated before the bridegroom, and a set of merry ceremonies, in which the rest of the night passes, are begun. At dawn the bridegroom is for the first time

* This includes clothes, jewels, furniture and ornaments for a lady's sitting room and bedroom and a set of cooking vessels. This continues to be the wife's property and has to be returned to her in case of divorce.

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shown his wife's face in a mirror, and from a Kurān placed between them the chapter of Pieace is read. This is the sign that the time has come for the bride to leave her father's house.

After the marriage the husband and wife pass some days in amusement and amorous sport. On each of the first five Fridays after marriage the couple is asked to dine at the wife's father's house. Much is thought of these Friday dinners known as *jumagis* and if they are not given, a man seldom visits his father-in-law's house.

Talak (divorce) recognised by Mohammadan law are of various kinds of which the three forms legal according to traditional law are: (1) *Talak-i-ahsan*, the most reputable kind of divorce, in which the husband pronounces, 'I have divorced you' once before the *iddat** (time of woman's probation) has expired : this is reversible; (2) *Talak-i-rajai*, in which the declaration of the husband to that effect is twice repeated: also reversible; (3) *Talak-i-husn*, in which the husband pronounces three different sentences of divorcement in as many months : this is irreversible and the wife cannot be taken back until she has been married and divorced by another man.

Death

A Muslim wishes that he should not die unawares or meet his end in a foreign land. To one on the point of death, the *sura-e-yasin* from the Kurān is read in a low voice, the creed and prayer for forgiveness is recited so that the dying may also repeat it, and a few drops of honey or sugared water are dropped into the mouth. When life is extinct, the eyes and mouth are carefully closed and arrangements for the funeral are made without loss of time. The body is laid on a wooden platform and scrupulously washed§ and perfumed. Professional bathers may be engaged for the purpose who must be of the same sex as the dead. A *kafan* (shroud) consisting of three white cloth pieces namely *lungi* or *yar*, *kamis* or *kurtā* and *lifafa* in the case of the male with an addition of two pieces namely *sima band* and *odhani* in the case of female, is put on the dead body.

If death happens at night the body is not taken away till dawn. Otherwise, as soon as it is bathed, shrouded, and friends have taken their last look, the body is laid on the bier. The mother generally says, 'I withdraw all the claims upon you as a nurse,' and if desired the wife and others also withdraw their claims. Then the bier is lifted on the bearers' shoulders and borne away, the company of men raising the cry *'Lāilāha illallāh'* (There is no God but Allah) and trained singers chanting solemn hymns. The bearers repeat the *kalmā* as they walk and change their shoulders, until they reach a mosque and set the bier in the outer court. The mourners wash and, standing in a row, repeat the funeral prayer. If the body is carried directly to the graveyard, the last prayers are offered in the open near the

*The time of legal probation, usually three months, after divorce during the woman cannot marry and the husband is bond to support her.

§The Sunnis, unlike the Shiāhs, use warm water in which *bor* or *jujube* leaves are boiled, to wash the dead.

graveyard.[1] At the burial ground the gravel is dug and kept ready ahead of the arrival and the mourners lay the body in it, the head to the north and leaning on the right side so that the face turns towards Mecca. They lay clods of consecrated earth[2] close to the body and after the grave is closed, the learned among the present, usually the *pesh imām,* recites portions of the Kurān and all present pray for the peace of the soul. The duty of helping at funerals and praying for the souls of the dead is solemnly enjoined on all Muslims and is carefully observed by them.

Among the rich the clothes of the dead are given in charity and grain distributed at the house of mourning or at the mosque. Till the third day no food is cooked in the house of mouring; friends or relations of deceased send ready-cooked dinner or cook them at their expense at the house of mourning. Although not sanctioned by religion, *ziyārat* is observed on the third day, on which the mourners repair to the grave or sit at home or at a mosque, read the Korān and carry an offering of flowers and scent to the grave. The custom of observing the tenth and fortieth day by giving a dinner to relations, friends and the poor is fast getting out of vogue. Once in a year on a particular day, Muslims offer prayers, distribute alms to the poor, feed the orphans in remembrance of their dead. They also visit the graveyard on that day.

The only form of mourning laid down by Muhammadan law is, in the case of the death of the head of a house, the strict seclusion of his widow. Unless forced to do so, she never leaves the house for four months and ten days. Besides this strictly Muhammadan observance, other customs also persist among some people, *e.g.*, as soon as life is gone the widow breaks her bangles and never again wears bracelets or a nosering; if young she wears some dark coloured dress, if old a white one, but never either yellow or red.

BOHORAS.

Of the Muslims, whose origin is traced to Hindu converts, the most important are the Bohoras. In 1872 Bohoras formed 44 per cent of the entire population of the district. This large body includes two main classes distinct from each other in occupation and religion. Of these, the one, generally engaged in trade are a very small body to be found in the towns of Broach and Jambusar, and mostly Ismaili Shiās in religion; and the other belonging to the Sunni community form a large section of the population, are a country people mostly employed in tilling the fields and are distributed over every part of the district. No authentic details are available to show the actual strength of each of these classes. They are described below as (1) Shiāhs or trading Bohoras, and (2) Sunnis or cultivating Bohoras.

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1 The grave may be in one of the three forms: a pit where the body is placed and earth thrown in; a hollow formed by planks placed aslant; a hole of soft yielding mud into which the body is gently left to sink. Coffins also are used, but only by the very rich.

2 This earth is consecrated by reading and breathing over it some of the last chapters of Korān.

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Shiahs or trading Bohoras.

Regarding the origin of the name Bohora, various theories have been forwarded. Many Banias and even Nagar Brahmins to this day bear the surname Bohora or Vora, but a Hindu Bohora caste as such cannot be traced in Gujarat at present. The word could better be derived from Gujarati *voharvu* to trade, the occupation followed by the first Hindu converts to Islam. The term was further extended to converts from all the unarmed castes, Brahmans, husbandmen and craftsmen, converts from the armed Rajput and Koli castes being distinguished with separately coined names such as Molesalam, Malik, and Sipahi etc.

The Shiahs or trading Bohoras are further split up into five divisions *viz.*, (1) Alia, who take this name from Ali, who founded the sect in A.D. 1624; (2) Daudi, who form only a small part of the community; (3) Jaāfari or Patani who are descendants of those Daudis, who went over to the orthodox (Sunni) faith on the advent of Muzaffer I as Governor of Gujarat in A.D. 1391, but kept their marriage relations with Daudi section until their connection was severed by a saint named Sayad Jaafar Sherazi about A.D. 1535; (4) Nagoshis or non-fleshites who, according to the account generally given by the Daudis, are a very small schism not earlier than A.D. 1789; and (5) Sulaimani, the descendants of the converts made in Arabia in the sixteenth century by a missionary sent by a Surat Bohora.

Daudis, also called *Lotias* because their turbans are shaped like a *lotā* (water-pot), are the richest, best organised and most widely spread class of Gujarat Muslims. In Broach district, however, they are found only in a small body in the towns of Broach, Jambusar, Ankleshwar and Nandod.

The orthodox males in the community shave the head, wear long thin beards, and cut the hair on the upper lip close. The women pencil their eyelids with collyrium, blacken their teeth with *missi* and redden the palms and soles with henna. Daudi Bohoras are noted for their fondness for living in large and airy houses and for their love of display in house ornaments and furniture.

The thoroughness of their socio-religious organisation, the envy of other Muslims, is the most marked feature of the Daudis. They are Shiāhs of the Mustalian division of the Ismāili sect. They are fond of pilgrimage to Mecca and Karbala, abstain from music and dancing and from using or dealing in tobacco and intoxicating drinks or drugs. Their leader, both in things religious and social, is the Mullāhji who formerly had his head-quarters at Surat but now has them in Bombay.

Sunni Boharas.

Sunni Bohoras, commonly known as Sunni Bohora (or Vora) Patels are found in large numbers in the rural parts of the Broach district. Noticed by the District Gazetteer of Broach and Surat (1857) these 'peasant Bohoras' were a large class numbering in the Broach district alone over 30,000. In 1901, of the total Muslim population of 63,408 of Broach district, Bohoras numbered 31,124 and, in

1911 they were 33,089. In 1921 of the total of 36,584 Bohoras in the district, Sunni Bohoras numbered 35,914 (*m.* 18,165 ; *f.* 17,749) the rest 970 being Shiāh Bohoras. Assuming that between 1921 and 1951 the Sunni Bohora population had increased by 40.8 per cent. as has the general population of the district, it may be estimated that they numbered about 50,500 in 1951.

MUSLIMS.
Sunni Bohoras

The Sunni Bohoras appear to be the descendants of Hindu converts of the unarmed castes who adopted Islam at the close of the fourteenth and during the fifteenth centuries. Many peasant Bohoras know to what Hindu caste their forefathers belonged. A large number settled in Sārod in Broach claim descent from Manchārām, a Brahman of Morvi in Saurashtra who was converted by Mahamud Begada (A.D. 1459-1513). Some Bohoras in Dhanduka, Kavi, and Jambusar are Ravalias, some in Bharkodra are Vānias, some in Devdi are Rajputs, some in Tankaria are Bhātias or Lohānās, some in Khanpur are Dheds, some in Achodi are Chamārs, some in Mora are Khatris, and some in Akola are Mod Ghanchis. Those who claimed high caste descent refused to give their daughters to lower caste Bohoras.*

In addition to their Hindu origin, the look and manner of Sunni Bohoras would, at least in Broach, seem to show that they include some considerable foreign element. All who have studied them have dwelt on their peculiar appearance and character, but what the non-Gujarat element is has not yet been settled. They have strong burly muscular frames with fair complexion and high regular features. They shave the head and wear the geard long and full. The women are tall, stout and fair with good features.

Dress.

Ordinarily, the dress of a Sunni (cultivating) Bohora consists of a *fenṭā* (loose turban) or a cap as head-dress, a shirt or *baṇḍi* for covering the upper body and a pyjama or *padu* (coarse dhoti) worn round the loins without passing between the legs for covering the lower body. In addition to these articles, a well-to-do person uses a *baṇḍi* as an underwear and puts on a coat or a jacket or sleeveless coat. Men of higher social status who have often to visit district or taluka headquarter towns put on a *sherwani* instead of a coat. Usually these garments are made of cotton cloth, but during winter some may go in for woollen coats, jackets or *sherwānis*. Woollen shawls or scarfs are also worn by the well-to-do. Generally a man carries with him a cotton towel scarf slung over the shoulder for being used to wipe off his face after ablutions for prayer. These articles of dress do not vary among the rich or the poor except that the rich get them prepared out of varieties finer than those used by the middle or poorer classes. For ceremonial occasions, these articles are made of costlier fabrics.

* Bom. Gazetteer, Vol. IX, pt. II p. 56.

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Males do not wear any ornaments or jewellary except that some of them put on gold or silver finger rings with or without settings of precious stones, and use gold or silver buttons for their shirts or coats. But here also, the orthodox do not have rings or buttons of gold since Islam prohibits the wearing of gold for men.

MUSLIMS. Sunni Bohoras. *Dress.*

Except in and near towns where they have adopted Muslim fashions, over the whole of the district peasant Bohora women dress like Hindu women in *odhni* or *retio* (upper scarf), *sāḍī*, *sallo* or *bant* (robe), *kapḍū* or *aṅgiā* ,bidice) and *ghāgro* (petticoat). The sophisticated one now wears in Muslim fashion *odhni* for covering the head, bodice as under garment and *kuḍti* or *farak* (shirt) for the upper body, and *ijār* (pair of trousers) or pyjama as the lower garment. As a foot-wear she uses *sapat*, leather *chappals* or sandals.

Children dress the same way as their elders do. Some families have adopted the modern dress-ware like the bush-shirt, pants etc. for their young boys.

The peasant Bohora woman who was once known to prefer very massive and heavy ornaments partly of Hindu and partly of Muslim make, and to avoid those that ring or tinkle, has acquired a new taste. She now wears for the ear *durs* (gold pendants) in the lobe and *wintlās* (earings) of silver or gold in the rim. Girls, however, have discontinued to display five or seven *wintalas* as worn by their mothers in each ear rim. A tiny gold *kānṭo* (nose-stud), sometimes beset with an artificial gem, is worn on the left nostril. Necklaces known as *tusi*, *kanṭhī* or *hār* made of gold beads or chain work are worn round the neck, hanging on the chest. Bracelets called *kangans* and *pānṭlās* of worked gold, and *cuḍis* (bangles) of silver or gold are worn one or two on each hand interspersed with glass bangles. Gold or silver *anguṭhis* (finger rings) are worn on fingers and *saṅkḷās* and *pāizeb* (anklets) of silver chain work are worn round both the ankles.

Food.

Ordinarily, they take three meals a day. In the morning, tea is served with *roṭalo* (unleavened bread) of *jowari*, *bajri* or wheat. Their afternoon meal consists of the same bread served with stewed vegetables or a vegetable Soup. They take mutton and fish whenever available. In the evening, they usually take *khicaḍī* made of rice and *tur* pulse, and *kadhi*, a spicy preparation of whey or curds, or some vegetable soup.

Language.

Except among the Ankleshvar Bohoras who speak half-Hindustani, half-Gujarati, their home language is Gujarati, with less peculiarity of dialect than among Daudis.

Present condition

As a class the peasant Sunni Bohoras are agriculturists, but on account of the general awakening and education among them during the first half of the present century, several of them have taken to trade and government or private service. A number of families have settled temporarily in South and East Africa for business or service.

They are known as *safris* and they keep up their social ties with the fatherland by paying periodical visits to their native place. On the whole, the community may be said to be making rapid progress in education and social life.

MUSLIMS. Musalmans.

Molesalams, numbering 4666 (*m.* 2357; *f.* 2309) at the census of 1921, and found chiefly in Broach District and the Rajpipla subdivision, are converts to Islam made from among Rajputs, chiefly in the reign of Mahamud Begada Sultan of Gujarat (A. D. 1459-1513). The Molesalam Thakors of Amod and Kerawada claim descent from Jadav Rajaputs who were converted by Mahamud Begada in A. D. 1486. The name is derived from *Maula-Islam*, meaning masters in Islam. When an infidel was converted to Islam, it was the custom to call him *Maula*.

They are Sunnis. They speak Gujarati and the Hindu law applies to them, though of late the educated young from the community have been favouring Mahommedan law and Urdu. They keep sometimes small beards. Indoors, a Molesalam wears a waistcloth; out of doors *feṅṭā* or turban, coat and trousers, with a cloth wound round the waist or thrown over the shoulders like a Rajput. Their women dress like ladies of the Rajput or Girasia community. They wear a *salla* (robe) a bodice and a petticoat, and do not observe *purdah*.

Molesalams dine with other Musalmans, and though they sometimes take flesh, ordinarily they eat vegetables like Hindus. A Molesalam will marry his daughter to a Shaikh a Sayad, a Mughal or Bābi, but not, as a rule, to Musalmans of the lower order. The son of a chief may get a Rajput girl in marriage. But other Molesalams marry either among their own people or the poorer classes of Musalmans. They employ *kāzis* and *maulvis*, but also maintain their old Brahman family priests and support Bhats and Chārans, whom the rich engage to while away their leisure by reciting poetry and the poor to serve as priests at marriage. Apart from the few who are hereditary landlords or former *Talukdars* the majority of Molesalams are cultivators, shop-keepers, traders and businessmen.

PART IV

ECONOMIC ORGANIZATION.

CHAPTER 4 — GENERAL ECONOMIC SURVEY.

CHAPTER 4.

—

General Economic Survey.

INTRODUCTION.

IT IS INTENDED TO DEVOTE THIS PART to a fairly detailed account of the main features of economic life in the Broach district. The following chapters, therefore, deal at some length with subjects like agriculture, industry, trade and commerce, finance, other occupations, and transport and communications in the region. An attempt is also made to give a broad idea of the standard of life of the people both in the rural and the urban areas and also to indicate the potentialities of economic progress by drawing particular attention to those natural resources and peculiarities in which the district enjoys a position of advantage. The brief survey of economic conditions contained in this chapter would serve as an introduction to the more detailed study which follows in the later chapters. It endeavours to present a bird's eye view of the whole picture.

POPULATION

The population of Broach district was 3,26,930 in 1881 and 7,06,035 in 1951. As, however, the 1951 population included approximately 2,78,437 persons belonging to the Indian State areas merged into the district in 1949, the population of the pre-merger areas of the district in 1951 must be taken as 4,27,598. On this basis, the percentage increase in population over the period of 70 years (1881-1951) is 57.8. The process of urbanisation has not gone on very rapidly and the district continues even today to be predominantly agricultural, as much as 71.2 per cent of the population having agriculture as their principal means of livelihood and over 16 per cent having it as a subsidiary or secondary means. In many of the towns in the district, the population has not increased to a greater extent than in the district as a whole. It is only three towns, namely Ankleshwar, Broach and Rajpipla, which have shown some sizeable increase in population. Broach owes this growth to its being the head-quarters of the district. Rajpipla had importance as the capital of the former Rajpipla State and even today it is the head-quarters of a Prant; and Ankleshwar owes its growth to its importance as a large transhipment centre and also to increased trading activities, particularly in cotton.

Of the total population of 7,06,035, 1,65,970 were self-supporting persons, 4,15,695 non-earning dependants and 1,23,740 earning dependants. The agricultural class consisting of persons depending on agriculture as the principal means of livelihood, numbered 5,03,028. Among these, the self-supporting persons were 1,11.034, earning

dependants, 1,02,871 and non-earning dependants 2,89,123. Following another method of classification among the agricultural class—(i) the cultivators of land wholly or mainly owned by them and their dependants numbered 2,59,736; (ii)the cultivators of land wholly or mainly unowned by them and their dependants, 90,012; (iii) the cultivating labourers and their dependants 1,44,544 and (iv) non-cultivating owners of land, agricultural rent receivers, and their dependants 14,736. The non-agricultural class, consisting of persons whose principal means of livelihood were pursuits other than agriculture, numbered 2,03,007 and was composed of 54,936 self-supporting persons, 20,869 earning dependants and 1,26,572 non-earning dependants. This class was also distributed under different heads as under: (i) production other than cultivation, 51,706; (ii) Commerce 37,395; (iii) transport 7,132 and (v)i other services and miscellaneous sources 1,06,774. There were several among the population who, in addition to their principal means of livelihood, had a secondary occupation. Agriculture provided such occupation to 1,14,984 persons, and the non-agricultural pursuits to 36,332 persons.

CULTIVATED AREA.

Of the total area of 18,91,366 acres, the cultivated area covers 11,35,293 acres i.e., 60.02 per cent. About 14% of the districts' total area is under forests and covers 2,66,232 acres. Forests are mainly located in the southern talukas of Nandod, Jhagadia, Valia, Dediapada and Sagbara. Cultivable waste is only 79,733 acres and permanent pastures and grazing grounds cover an area of 59,939 acres only. The rest of the land is either covered by trees and groves or is put to non-agricultural use.

Agriculture in this district depends chiefly on rainfall. The average annual rainfall of the district is about 36.7 inches but varies from 27″ to 50″ from place to place in the district. The supply of rain in the Rajpipla sub-division would seem to be more plentiful than in the other parts of the district. Its nearness to the sea, abundant rainfall in the hilly regions, and the perennial rivers, Narmada, Dhadhar and Kim render Broach district immune from any scarcity of crops due to failure of rains.

In 1951-52, the total cropped area was a little more than 10 lakhs of acres, of which only 0.5% were under irrigation. Most of the irrigation in this district is by wells. As the district is not normally liable to famines and scarcity, not much attention has been paid to other sources of irrigation. The perennial rivers that run through the district are the Narmada, the Kim and the Dhadhar, but these have not yet been harnessed for the purpose of irrigation.

SOILS.

Nearly 7,50,000 acres of the district are composed of black soils, which are extremely well suited for the cultivation of cotton. The *gorat* soil, which covers an area of 1,00,000 acres, is suited for the cultivation of cereals, pulses, and ground-nuts. The *bhatha* soil, consisting of the rich alluvial silt deposited by various rivers of the

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district, covers a smaller area but excellent garden crops could be raised on this type of land. *Kyari* soil, although covering a very small area in Broach district, is the richest soil and is well suited for the cultivation of paddy, wheat and gram.

CROPS.

The entire rural economy of the district is characterised by the overwhelming importance of non-food crops. Of the total area under crops, the non-food crops account for 6,44,650 acres while the food crops cover only 4,11,290 acres. The main food crops of the district are jowar, rice and bajri among cereals; *tur* and *lang* among pulses and some fruits and vegetables. Broach does not grow enough food grains for its population and in normal years it has to import the same from other districts. Jowar covers 2,26,053 acres (21.4% of the districts' cropped area), bajri 24,770 acres (2.34%), rice 66,311 acres (6.27%), tur 25,852 acres (2.4%) and *lang* 14,696 acres (1.39%). Broach district is famous for its *lang* cultivation and exports large quantities of *lang* pulse to other districts of the State and even to neighbouring States.

COTTON.

Broach is fortunate in regard to its non-food crops. In 1951-52, non-food crops covered an area of 6,44,650 acres, of which cotton accounted for 4,67,238 acres, groundnut 24,852 acres and tobacco 1,412 acres. Broach, in fact, can be properly called a cotton district because as much as 44 per cent of the districts' cropped area is reported to be under cotton crop. Broach has been famous for its cotton cultivation since time immemorial and even today it enjoys a pride of place both in respect of quality and quantity. The cultivation of cotton received a great impetus at the hands of the early British administrators. As early as in 1811 experiments were commenced for the improvement of cotton grown in the district. Broach was one of the regions where the earliest efforts were made to grow American cotton. The present varieties of cotton, namely the *Vijay* which is grown in the areas north of the river Narmada and the strain *No. 2087*, which is grown in the regions south of the said river, are the results of the efforts of the State and the trade towards the improvement of quality of cotton. Both these varieties are stated to be quite popular among mills which require cotton of long staple. Almost the whole of the cotton crop of the district goes out of the district. Out of 1,15,000 bales into which the total quantity of cotton produced in the district is pressed, only 300 bales or hardly 0.2 per cent are consumed by local mills, whereas the remaining 1,14,700 bales are exported to other places in Bombay State and also outside. Other non-food crops also are sent to the neighbouring areas.

FORESTS.

About 14 per cent of the Broach district's total area is covered with forests and all the talukas and mahals of the Rajpipla sub-division have very thick forests. These forests yield very valuable material for export outside the district. The principal forests produce in Broach district is teak wood which forms nearly 40% of the total grown stock. The other principal forest products are timber,

fuel, charcoal, grass, *hirda* fruit, catechu, tamarind fruits, babul pods, *timru* and *apta* leaves, bamboos, moha flowers and seeds, and *chilari* bark for tanning etc. The value of the total forests produce of the district was estimated at Rs. 3,95,000 in the year 1949-50.

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LAND.

Compared with 1900-01, the pressure of population on the land increased in 1950-51. The total area available for cultivation in 1900-01 was 6,75,736 acres (including 1,44,688 acres of current fallows and 31,538 acres of area uncultivated but available for cultivation), working out to 2.3 acres per head of the population of the district (2,91,763) and the actual area cultivated was 6,44,198 or 2.20 acres per head. In 1949, the Rajpipla state merged in the Broach district and in 1951-52, while the actual area available for cultivation was 12,15,026 acres (including 1,20,576 acres of current and other fallow lands and 79,733 acres under "uncultivated cultivable waste") or 1.7 acres per head of the population (7,06,035), the net cultivated area was 11,35,293 or 1.60 acres per head.

Holdings.

Statistics of distribution of land are available only for 11,63,089 acres of land (both *Khalsa* and *inam*) for the year 1952-53. It is significant to note that a little more than 42 per cent of the above acreage i.e., 4,89,981 acres was distributed among 78,292 holders (81.43 per cent of the total number of holders) holding less than 15 acres each, giving an average of 6.25 acres per holder; and 5,60,261 acres or 48 per cent among 17,461 holders holding over 15 acres and upto 100 acres, giving an average of 32.08 acres per holder. The rest 1,12,847 acres forming 9.7 per cent. of the total area held was distributed among 387 holders having more than 100 acres each, giving an average of 291.5 acres each. The average size of holdings in this district works out at 12.09 acres. The fragmentation of each holding makes the holding in many cases uneconomic. A recent sample survey of holdings in Broach district (1949) shows that the average size of holdings in the Broach district is 9.57 acres and that the number of fragments per holding is 4.82. The average size of a fragment, therefore, comes to about 2 acres. It is evident that there was some increase in the size of an average holding in 1952-53 over that of 1948-49, and it was mainly due to the merger of the Rajpipla state bringing large hilly and forest areas into the district. The size of holdings has to be bigger in such areas on account of the less productive nature of the land. The Bombay Prevention of Fragmentation and Consolidation of Holdings Act, 1947, is being implemented in this district in order to consolidate uneconomic fragments and to improve the present position.

Tenancy.

The Bombay Tenancy and Agricultural Lands Act of 1948 has been enacted to give Security of tenure to tenants. The Act has fixed the maximum rate of rent at ¼th of the total crop in the case of irrigated lands and non-irrigated lands respectively. It also gives powers to Government to fix rent at a rate lower than the maximum laid down by the Act. In November 1952, Government issued a

CHAPTER 4. — General Economic Survey. LAND. notification fixing, in the case of all lands whether irrigated or not, one sixth of the crop as the maximum rent payable by tenants of lands situated in the Broach district. A valuable right has been conferred upon the tenant in the form of the privilege of purchasing his holding from the landlord under certain conditions. This law is expected to bring about a more even distribution of land among cultivating owners.

IMPLEMENTS. The field tools and implements used generally by agriculturists continue to be the old and indigenous types, though some modern improved ones have been introduced. Iron ploughs are slowly replacing the indigenous wooden ones. Government maintain 5 tractors in the district for hire and 5 tractors are owned by individual cultivators. Recently, pumps worked by electric motors and oil engines have been coming into use in certain parts of the district. The high cost and the limited use of improved implements make the progress in their use very slow.

Livestock. Mechanisation of agricultural operations has not proceeded to such an extent as to diminish the importance of livestock in these operations. Livestock continues to be a valuable possession of every farmer. In rural areas, a farmer's status and efficiency are judged by the number of cattle he keeps. In 1948-49, there were 47,006 bullocks, 47,424 buffaloes, 9,951 cows, and 28,116 sheep and goats. When compared to the livestock figures of the old Gazetteer days these figures look too small and one is inclined to believe the reason advanced by the livestock authorities that as 1948-49 was a year of scarcity, a lot of cattle might have either perished or migrated to the neighbouring districts for want of fodder during that year. Efforts are being made to improve the breeds of the cattle in this district.

Wages. Agricultural wages in rural areas are paid both in kind and in cash. The average wage rate for a male labourer in agriculture is about Rs. 1-1/4/-, but wages vary between towns and villages. The lowest wage rate was recorded in the Ankleshwar taluka. In case of female labourers, the daily wage rate has varied from Rs. 0-8-0 to Rs. 0-12-0, while in the case of boys the variation is from Rs. 0-6-0 to Rs. 0-8-0. Skilled operations command high wages even in rural areas.

Famines. Broach district is more or less immune from scarcity and famines and not many famines and scarcity seasons have been recorded. The district has an assured rainfall and the precipitation is quite heavy in the hilly and rocky areas of Rajpipla sub-division. The district is, in addition, very well served by several perennial rivers including the Narmada. Hence naturally there have been lesser chances of famines. During recent years, the season of 1948-49 was the only one reported to be rather bad but immediate action was taken by the State to mitigate the distress.

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Industries.

Broach district is industrially very backward. It has no coal, iron, or other mineral deposits which could be exploited commercially. Hydro-electric power has not been developed inspite of the fact that several perennial rivers pass through the district. The census of 1951 returns only 58,263 persons as engaged in industries (i.e., "processing and manufacture" and "constructions and utilities"). Mechanized industries are confined to 57 cotton ginning and pressing factories ; 14 handloom factories ; a cotton spinning and weaving mill and 3 oil mills ; 2 factories engaged in the manufacture of leather washers and beltings ; 1 general engineering establishment engaged in the manufacture of spare parts of textile machinery ; 1 chemical factory engaged in the manufacture of *katho* or catechu; 2 electrical generation establishments, and 2 factories engaged in stone quarrying. Of these, cotton ginning and pressing factories form the largest group, give employment to 50% of the population engaged in industries and have taken up about 75% of the capital investment of the district. Jambusar, Palij, Ankleshwar and Broach are the chief centres of this industry. Next to this group, the textile mill at Broach forms another important industry. In 1950, there were three units of the textile industry, of which two closed down. These two industries are naturally important in view of the pre-eminent position of the district. Jambusar, Palej, Ankleshwar and Broach are the on an average about 1,15,000 bales of cotton and it is thus natural that it has facilitated the growth of these industries. These two industries have helped the growth of tertiary industries namely the factories engaged in the manufacture of washers which are in good demand in ginning and pressing factories ; and the one factory engaged in the manufacture of spare parts of the textile machinery.

Broach claims to be a pioneer in the field of extraction of *catechu juice (Katho)* from catechu trees of Rajpipla jungles. The factory at Rajpipla is the only one of its kind in the whole of the Bombay State. Similarly the production of a considerable quantity of oilseeds in the district accounts for the establishment of three oil mills in the district.

Another noteworthy feature is the novel organisation of the handloom industry on "factory basis" in Ankleshwar, the owners emloying weavers on wage basis. Thus, the industry, instead of being scattered over many houses, is centred in factories.

Among small scale industries carried on without the aid of power, handloom weaving of cotton and woollen goods is the most important. This is in keeping with the position of Broach as a large cotton producing district. According to the census of small scale industries carried out in 1951, this industry has 178 establishments and provides employment to 355 whole-time workers and 60 part-time workers. The industry in Broach has 1,280 handlooms and in Bombay State, Broach is one of the important districts for handloom weaving. The approximate annual requirements of yarn for the

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industry in the district is about 1,500 bales, valued at about Rs. 8,75,000 on the basis of prices prevailing in 1954. The products of the industry are mainly the cloth of coarse counts required by agriculturists, locally known as *Athan* or *mode*, bed-sheets, *chaddars*, *sarees*, *gadala-pats* (cloth for making mattresses), and khaddar cloth, which are used for local consumption as well as for sending out to the neighbouring areas. Other small scale industries carried on without the aid of power are those which have been in existence for a long time and are carried on in the traditional way i.e., carpentry, bidi making, shoe-making, bamboo working, tanning, smithy, coir industry and oil seed crushing. Among these, coir making and bidi making are the only two industries of some significance. The coir industry is growing because Broach has been growing as a big distribution centre of imported coconuts from Malbar by the sea route and coconuts are sent to distant places in India, after removing the husk from the fruits. Broach imports annually coconuts worth Rs. 75 lakhs; hence a large quantity of husk is available for this industry. Bidi manufacture has developed also to a great extent keeping pace with the growing demand for bidis. This industry employes about 600 persons in Broach district.

Trade.

According to the census of 1951, the various trades in the district, wholesale and retail, money lending, banking and other financial business, real estate and insurance, provided the principal means of livelihood to 37,395 persons or 5.2 per cent of the total population and a subsidiary means of livelihood to 3,980 persons. Excluding dependants, the self-supporting persons engaged in these trades numbered 9,083 persons, most of whom were to be found in the urban areas of the district. Retail trade alone employed 8,350 persons, money-lending, banking etc., 550 persons, and wholesale trade, 150 persons, leaving 32 persons in insurance and a lone individual in real estate.

Broach has been famous for its trading activities since olden days but its pre-eminent position has dwindled in recent years and its trade has come to be patterned to the needs of its own population and is generally confined to goods locally produced or imported for consumption in the district. Broach has a small port through which it imports some commodities and re-exports them outside the district. Coconuts are the chief article entering in this sort of trade.

The export trade is mostly in cotton, cottonseeds, timber, charcoal and firewood and fresh water fish. Out of the 1,14,700 bales of cotton exported from the district, about 40,000 bales go to Bombay and the rest in small quantities to Ahmedabad, Kanpur, Indore, Calcutta, Surat, and Ujjain. Important centres of wholesale trade in cotton are Broach, Ankleshwar, Palej, Nabipur, Hansot, and Kavi. Timber, charcoal and firewood from the jungles of Rajpipla, Dediapada, and Sagbara are sent to Ahmedabad, Baroda, Mehsana, Bombay and Saurashtra. Rajpipla and Netrang are the chief centres

of these trades. It is interesting to note that Broach city has been famous for its supply of fresh water fish collected from the river Narmada and large quantities of such fish are exported to Bombay and Surat.

Trade.

Retail and wholesale trade in food-stuffs alone gave in 1951 employment to 4,383 persons i.e., 48.2 per cent of the total of 9,083 self-supporting persons employed in all trades. Wholesale trade in commodities other than food-stuffs gave employment to 128 persons. Retail trade in textile and leather goods engaged 900 persons (9.9 per cent) retail trade in fuel including petrol 308 persons (3.3 per cent); money lending, banking etc., 550 persons (6 per cent); and retail trade otherwise unclassified 2,781 persons (30.6 per cent). This pattern of trade reflects the predominantly agricultural character of the district.

Retail traders are well distributed over the villages of the district, although the bulk of them work in urban areas. Almost every village has one or more retail shops, and average for the district works out at two shops per village. The system of holding periodical bazars — weekly or fortnightly — which was prevalent in the olden days, has almost disappeared from the district and such markets are held only at a couple of places in the Hansot and Sagbara mahals of the district. At 40 different places in the district, religious fairs in honour of local deities are held at sometime or the other in the year and some amount of trading activities are done at these fairs. The fairs in this district are less important than those in Maharashtra and Karnatak. Pedlars form a connecting link between the rural consumers and the traders in the towns. The establishment of shops in rural areas has considerably affected the trade of pedlars but they do exist in the district, though in a less recognised form. Like pedlars in the rural areas, hawkers in towns play an important part in the retail trade. Though no detailed information is available in respect of these hawkers, they do exist in almost all the towns of the Broach district.

The Sales Tax returns for the three months ending 31st March, 1951 show that in Broach district there were 1,106 dealers (i.e.,) as defined in the Sales Tax Act) and their turnover came to Rs. 3.9 crores. This turnover, however, does not represent the turnover of all traders. because "dealers" under the Sales Tax Act are fairly big traders (Rs. 10,000 turnover in the case of importers and manufacturers, and Rs. 30,000 in the case of other dealers). Hence a large number of petty traders are excluded from the returns.

Merchants in some trades have formed several organisations of their own to bring about closer co-operation amongst their members and to formulate common policies to promote their business. In many cases, disputes among the merchants are referred to these organisations for amicable settlement.

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Finance.

The seventy years have elapsed since the publication of the old Gazetteer have seen many changes in the field of finance. It was stated in the old Gazetteer, published in 1877, that there were in the district 76 persons who worked as professional bankers and were chiefly located in the towns of Broach and Jambusar which were the main centres of financial activities. A branch of the Bank of Bombay was opened at Broach in 1864 and in 1870 the Government treasury at Broach was handed over to the bank, with the result that the bank had big sums at its disposal to finance the cotton trade of the district. The chief business of the bank consisted in negotiating cotton bills and cotton traders of the district took advantage of this bank. Marine insurance was effected by some capitalists. In those days cotton was sent to Bombay by the sea route and as such it was insured under what was called the Gujarat system of insurance and charges varied from 13/32 to 21/32 per cent. Savings were generally confined to traders, money lenders, pleaders, high Government officials, shop-keepers and blacksmiths and carpenters employed in cotton factories because they were better paid. Often savings were invested in construction of houses. Government officials and Parsi traders invested their savings in Government securities also. There were four joint stock companies in the district in which a few traders and some other people had invested money. About 3 lakhs of rupees were invested in the savings bank. Money lending did not form the sole business of any particular group or class; it was often combined with other forms of business. Anyone, who had some spare cash, was anxious to lend it.

During the last seventy years, the pattern of trade and commerce in this district has changed considerably. Hence, radical changes have taken place in the agencies employed in financial operations. Co-operative societies now take the place of pride in Broach's finance. The first society to be registered in the district under the Act of 1904 was a cooperative credit society in the village Samni Satial in Amod peta in 1907, and during the subsequent years the district has nurtured the cooperative movement very well indeed. There are now five types of these societies working in the district. The activities of three of them viz: (1) agricultural co-operative credit societies, (2) multi-purpose societies and (3) land mortgage banks, are confined to agriculturists. The fourth, the non-agricultural co-operative credit societies are mostly urban societies supplying credit to members who are generally traders, artisans, factory workers, salary earners etc., residing in towns. The fifth is the central financing agency, the Broach District Central Co-operative Bank, Ltd.

In 1950-51, agricultural credit societies and land mortgage banks, which work mainly in the field of agriculture, were 247 in number, with a membership of 17,941 persons and had a share capital of Rs. 13,82,770 and working capital of Rs. 63,57,201. They had deposits from members and non-members to the tune of Rs. 20,19,921 and had advanced loans to members to the extent of Rs. 40,73,878.

The non-agricultural societies numbered 34 and had a membership of 8,629, share capital of Rs. 7,25,614, and working capital of Rs. 52,68,544. Their deposits from members and non-members were to the tune of Rs. 42,30,079 and their loans to members were to the extent of Rs. 18.94,477. The six urban cooperative banks had a membership of 3,963, share capital of Rs. 3,45,710 and working capital of Rs. 45,67,137. Their deposits from members were to the tune of Rs. 39,86,274 and the loans advanced to members amounted to Rs. 13,95,307. The Broach District Central Co-operative Bank had a membership of 1,530 individuals and 329 societies, share capital of Rs. 6,46,400 and working capital of Rs. 84,88,706. Loans advanced to member societies amounted to Rs. 66,689 and to individual members Rs. 1,20,57,014. Deposits made with it and its borrowings amounted to Rs. 73,92,868.

Inspite of this phenomenal advance in the field of co-operation, moneylenders still continue to perform an important function in the finance of the district. Licensed money-lenders, as on 31st July, 1951, numbered 175 and the amount of loans advanced by them stood at Rs. 21,16,321. Money-lending can now be done only by money-lenders registered under the Bombay Money-Lenders Act (XXXI of 1946) and their operations are regulated and controlled under the Act.

Joint stock banks come next. There are three branches of different banks registered outside the district. No commercial bank has its registered office in the district itself. All the three branches of banks are located in Broach town proper, and their deposits totalled Rs. 13,48,000 on 31st December, 1952.

Of late Government have liberalized their policy of advancing loans to agriculturists in the form of tagai. In 1952-53, the total sum sanctioned under the tagai loans schemes was Rs. 19,42,996. In addition to these loans, there are schemes in the district worked by the Department of Industries and Department of Industrial Co-operatives and Village Industries for giving loans to small industries, individual artisan, educated unemployed etc., but the amount advanced so far is insignificant.

As already stated, the habit of depositing savings with co-operative societies and joint stock banks has grown to a large extent. Whereas in 1877 deposits in the postal savings banks amounted to nearly three lakhs of rupees, in 1952-53 they stood at Rs. 92,56,544. In addition, an amount of Rs. 12,59,710 was invested in National Savings Certificates. Apart from the deposits of Rs. 13,48,000 in joint stock banks a good deal of people's money is invested in joint stock companies. In 1951, the shares capital of joint stock companies registered in the district was nearly Rs. 23 lakhs and a small sum of Rs. 34,832 was deposited with those companies. It has not been possible to compute the amount invested by the people of

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Broach in companies registered outside the district, but it is presumed to be fairly large. An amount of Rs. 7,23,000 was invested in Treasury Savings Deposit Certificates at the Broach treasury at the end of 1953. The amount of money actually invested in the form of insurance, either life or general, is not available, but looking to the number of insurance workers in the district viz. 32 in 1951, it may be inferred that a good amount of money is being saved in this form also.

Transport.

Vast improvements have taken place in the transport system of Broach district during the last seventy years, both as regards roads and railways. Railway construction was begun in the district during the latter half of the 19th centruty and 1861 saw the opening of the main broad gauge line of the B. B. & C. I. Railway (as it was known then). The system of railways now running through the district was completed by 1929. The whole district has now 173 miles of railway line with 46 stations. Of the total railway route mileage of 173 miles, only 29¾ miles are broad gauge and the rest is narrow guage. During 1952-53, more than 30 lakh outward passengers and nearly 11 lakh tons of goods were booked from the forty six stations of the district. According to the 1951 census, railways gave employment to 905 persons in the district.

The road system has also developed a great deal and the district is now criss-crossed by several well-built roads. The Bombay-Ahmedabad national highway runs through the district, covering 65 miles. There are in all 1,903 miles of roads in the district of which 261 miles are metalled and the rest are unmetalled. This works out at one mile of road to 646 persons of the district's population and an area of 2.66 sq. miles served by each mile of road. These roads connect the district with all the neighbouring districts. There are 7 major bridges or causeways over the roads and 62 ferries to take passengers and vehicles over rivers where bridges are not in existence. In important centres are to be found resting places like disrict bungalows, traveller's bungalows, houses and *Dharamshalas*.

In the matter of posts and telegraphs, the district is well served. Besides the chief receiving and distributing head office at Broach, there are 9 sub-post offices, 5 circle post-offices, and 112 branch post-offices spread over the talukas of the district. There are 9 telegraph offices and 3 telephone exchanges.

Motor transport in the district is now taken over by Bombay State Road Transport Corporation and has introduced uniform fares and it is running passanger buses on all motorable roads.

BROACH PORT.

One of the most significant facts about the district is that it contains a very ancient sea port at Broach proper. Broach is one of the oldest ports on the western coast of India. Eighteen hundred

years ago it was one of the chief seats of trade then carried on between India and the marts of Western Asia. The port is situated on the bank of the Narmada river estuary about 30 miles inside the Gulf of Cambay, where the river meets the Gulf. Sea trade to all ports of India except Bhavnagar is carried on in the fair season for about 7 months in the year and with Bhavnagar it is maintained throughout the year. In 1952-53, Broach port exported 28,443 tons of merchandise valued at Rs. 80,45,006 and imported 25,946 tons of goods valued at Rs. 43,15,127.

Besides Broach, there are three other minor ports which also serve the district to a smaller extent.

This broad picture of the economic life of Broach district would serve as an appropriate introduction to a more detailed study of its economic conditions which are contained in the following chapters.

Agriculture.

AGRICULTURAL POPULATION

CHAPTER 5 — AGRICULTURE

AGRICULTURE IS THE PREDOMINANT occupation in Broach district. and the census figures of 1951 show that it provides means of livelihood to 71.2 per cent. of the total population. The decennial census figures for the past seventy years, owing to changes in methods of enumeration and of occupational classification, do not provide a consistent record from decade to decade of the changes in the structure of the population actually engaged in agriculture. These changes have to be gauged from the figures of population given in the census reports under the head "Rural", which include not only persons engaged in agriculture and allied occupations, but also those engaged in definitely non-agricultural occupations. The figures show that, during the past seven decades, the increase in the rural population has been more than that in the urban population. This is illustrated by the following table :—

TABLE No. 1

Broach Population : (Rural and Urban) 1881-1951.

Year	Total Population	RURAL		URBAN	
		Number	%of the total population	Number	%of the total population
1881	3,26,930	2,62,813	80.4	64,117	19.6
1891	3,41,490	2,69,116	78.8	72,374	21.2
1901	2,91,763	2,20,161	75.4	71,602	24.6
1911	3,06,717	2,42,979	79.2	63,738	20.8
1921	3,07,745	2,37,649	77.2	70,096	22.8
1931	3,34,170	2,65,290	79.4	68,880	20.6
1941*					
1951	7,06,035	5,77,030	81.7	1,29,005	18.3

During the period 1881-1951, the total population increased from 3,26,930 to 7,06,035, which means an increase of 3,79,105 i.e., 115.9 per cent. This addition, however, is partly due to the merger of the Rajpipla State in the district in 1949. According to the census of 1951, the population of areas merged in Broach district was

* Figures of Broach District separately not availble.

2,78,437; therefore the population in the premerged areas of the district in 1951 must be taken to be only 4,27,598 or an increase of 1,00,668 over a period of seventy years. This gives a percentage of 30.79 of the total population of the district in 1881.

Going by census figures alone, the rise in rural population in the district as a whole has been from 2,62,813 in 1881 to 5,77,030 in 1951, i.e., a rise of 119.55%. But this increase is more apparent than real because of merger in the district of the Rajpipla State. The percentage of rural to total population in the year 1881 was 80 1 and the same according to 1951 census shows a higher percentage i.e., 81.7%. If the figures of areas merged in the district are analysed, we find that this increase in the rural population is more because of the overwhelmingly rural nature of the former. The five talukas of Nandod, Sagbara, Valia, Dediapada and Jhagadia have only one town namely Rajpipla with a population of 17,420 and their rural population constitute 93.7%. Taking out the merged areas from the 1951 population figures, the premerged district shows a lower rural ratio. In the premerged areas of the district the rural population constituted only 73.9% of the total population; and this shows that the rural population in these areas registers an increase of only 20.24% as against 30.79% increase in the total population. The urban population shows a marked increase during the period.

The urban population in 1881 was recorded at 64,117 and it has increased to 1,29,005 in 1951 — an increase of 101.20%. But the ratio of urban population to the total has come down during the period of seventy years from 19.6% to 18.3%. Taking out the merged areas, the premerged areas show a small degree of increased urbanisation. The town in the merged areas is only one-Rajpipla — and it had in 1951 a population of 17,420. In calculating the rate of urbanization, this figure has to deducted from the urban figure for 1951. This gives for 1951 an urban population of 1,11,585, giving a percentage increase of 70.40% from 1881. Even this percentage is not a real indication of all round urbanization. In fact, urbanization in the district has been confined to the old towns of Broach and Ankleswar. Leaving out Rajpipla, there are six towns in the district, each with a population of over 5,000. Of these, two are towns grown out of the old villages by natural increase in population. It is not possible to estimate the degree of urbanisation which these towns have achieved, as figures of population for them are not available for all years from 1881.

The following table gives a list of (A) the towns in the old district and (B) the town in the merged areas, their population in 1881 and 1951, and the percentage increase in population between those years :—

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TABLE No. 2

Population of Towns in Broach District : 1881 and 1951

	Towns.	1881	1951	Increase in Percentage.
1.	Amod	5,822	7,833	34.54%
2.	Ankleshwar	9.535	15,275	60.19%
3.	Broach	37,281	62,729	68.25%
4.	Hansot	—	6,078	—
5.	Jambusar	11,479	14,244	24.08%
6.	Kavi	—	5,426	—
7.	Rajpipla*	10,777	17,420	61.64%

The towns of Kavi and Hansot are new towns, just crossing the 5,000 mark and their earlier population figures are not available. Janbusar shows an increase of 24.08% which is much below the increase for the district as a whole i.e., 30.79%. The highest percentage increase has been in Broach, followed by Ankleshwar and Amod. The town of Rajpipla, which comes under merged areas, also shows an increase of 61.64% in its population since 1881. The total population of the old towns in 1881 was 64,117 and they had in 1951 a population of 1,11,585 working out an increase of 70.40% over seventy years.

The increase of population in Broach must be attributed to its being district headquarters, its rise as a centre of cotton trade and its being a railway junction and a port town. Ankleshwar owes its importance not only to its cotton trade but also to its being a junction of the main line of the Western Railway and the branch line to Rajpipla. Ankleshwar has in fact become a very large transhipment centre for the railway, with the result there has been a considerable increase in the trading activities of the town. Rajpipla, the headquarter town of the merged Rajpipla State, has now become the headquarters for the sub-divisional administration and is the chief centre of trading in timber, firewood, charcoal and other forest products.

Though most of the talukas in Broach district are overwhelmingly rural in nature, the rural-urban ratio varies from taluka to

* This town formerly belonged to the Rajpipla State of the Rewakantha agency States and was known as "Nandod." Since July 1949, as arising of the merger of the Rajpipla State in Broach, it forms part of the reconstituted Broach district.

taluka. According to the census of 1951, the rural population of the district has been divided among various talukas as follows :—

TABLE No. 3.

Rural Population : Broach (talukawise) 1951.

	Taluka	Males	Females	Total	Percentage of the total population of the taluka.
1.	Amod	19,274	17,877	37,151	82.58%
2.	Ankleshwar	24,216	23,458	47,674	75.73%
3.	Broach	44,847	43,102	87,949	58.36%
4.	Dediapada	15,647	14,404	30,051	100%
5.	Hansot	13,035	12,837	25,872	80.97%
6.	Jambusar	37,446	35,204	72,650	78.69%
7.	Jhagadia	41,794	39,407	81,201	100%
8.	Nandod	42,694	40,056	82,750	82.60%
9.	Sagbara	8,597	8,237	16,884	100%
10.	Vagra	23,130	21,587	44,717	100%
11.	Valia	25,680	24,451	50,131	100%
	Broach District.	2,96,360	2,80,670	5,77,030	81.72%

The talukas of Valia, Vagra, Sagbara, Jhagadia and Dediapada are purely rural as there are no towns in them. Broach taluka has 58.36 per cent of its population in rural areas, which is the smallest among talukas of the district. The rest of the talukas are predominantly rural, the percentage of rural population to the total varying from 75.73 in Ankleshwer to 82.60 in Nandod.

As already stated, in the absence of comparable data, changes in the population actively engaged in agriculture for their livelihood cannot be presented from decade to decade. However, the 1951 census gives the following figures in regard to the number of people engaged in agriculture and in various allied occupations :—

TABLE No. 4

Population Engaged in Agriculture : *Broach* (1951)

	Self Supporting Persons		Earning Dependants		Non-Earning Dependants		Persons following other professions as their main occupation but deriving secondary income from agriculture.	
	Males	Females	Males	Females	Males	Females	Males	Females
(1) Cultivators of land wholly or mainly owned and their dependants ...	48,786	3,000	16,155	32,372	64,436	88,987	4,845	3,327
(2) Cultivators of land wholly or mainly un-owned and their dependants ...	17,488	771	6,820	12,190	22,107	30,636	5,393	2,160
(3) Cultivating labourers and their dependants ..	30,887	5,884	10,739	23,745	32,152	41,137	32,508	64,021
(4) Non-cultivating owners of land ; agricultural rent receivers and their dependants ...	2,825	1,393	397	453	3,662	6,006	2,394	336
TOTAL—All Classes ...	99,986	11,048	34,111	68,760	1,22,357	1,66,766	45,140	69,844

TABLE No. 5

Persons engaged in allied agricultural occupations, Broach, (1951).

	Employers		Employees		Independant workers		Total	
	Males	Females	Males	Females	Males	Females	Males	Females
1. Plantation	43	—	35	—	3	2	81	2
2. Forestry and wood cutting	9	—	190	1	175	7	374	8
3. Stock-raising	8	—	61	5	755	49	824	54
4. Rearing of small animals and insects ...	—	—	—	—	15	—	15	—
TOTAL—All Classes	60	—	286	6	948	58	1,294	64

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Agriculture is the main source of livelihood to 5,03,028 persons, including self-supporting persons and their dependants, both earning and non-earning. In the above tables are included persons engaged in agricultural cultivation; land-owners, cultivating and non-cultivatting, farm labourers; garden cultivators; labourers working in forests; and persons engaged in rearing, breeding of and dealing in livestock. The majority of the workers on land are the cultivating owners, numbering 2,53,736 i.e., 35.9 per cent of the total population of the district, who work on their own farms; and agricultural labourers, numbering 1,44,544 (20.18% of the total population), who work on other people's farms for wages in cash or kind, are probably the next important class. Cultivators of unowned lands are 90,012 in number. The non-cultivating owners of land, numbering 14,736 usually give out lands to tenant cultivators on rent. The remaining include 878 persons engaged in stock raising, 382 forest labourers, 83 plantation workers and 15 persons engaged in rearing of small insects and animals. Persons engaged in livestock business usually keep good quality cattle, buffaloes and transport animals, breed them and meet the requirements of the district. They also keep sheep, goats and poultry.

RAINFALL.

Rainfall is a main factor conditioning agricultural operations and the district gets it in adequate quantity. Besides, this district lies on the shores of the Arabian sea and is well served with sub-soil waters of various rivers passing through the district to the sea.

The average rainfall of the whole district comes to 36.7". The average annual rainfall of the Broach Division is 32.2" while that of the Rajpipla division is 43.7". Rainfall increases from 27" or less along the coast to 48" to 50" in the east. The southern and the western areas of the Rajpipla division obtain the largest amount of rain in the district.

The chief feature of rainfall in the district is that over 90 percent of the annual rainfall is concentrated in the monsoon months from June to September, and inclusive of October, the percentage rises to 96 to 98 percent. July is the rainiest month, accounting for 36 to 40 percent of the annual rainfall. August comes next with about 20 per cent, followed by June and September with 15 to 20 per cent each and October with 4 to 5 per cent. Little or no rain occurs in the remaining months.

AGRICULTURAL SEASONS.

There are three main agricultural seasons in Broach district and they are - (i) *Kharif*, (ii) *Rabi* and (iii) the hot weather season. Almost all crops found in the district are grown in these three seasons.

The Kharif season, which commences by the middle of June and terminates by the middle of October, draws its rainfall chiefly from the south-west monsoon and from the occasional ante-monsoon showers in May. About 96 per cent of the annual rainfall is

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AGRICULTURAL SEASONS.

received in this period in the Broach district. The rainfall is on the whole well-distributed in the district. The main kharif crops are paddy, bajri, kharif jowar, kodra, maize, gram, *math*, *mug*, *chavli*, banti, *nagli*, *val*, *udid*, moria, tur, til, grounnut, caster, cotton, tobacco and sugarcane. Kharif crops are grown all over the district but are found more in the talukas of Jambusar, Ankleshwar, Jhagadia, Dediapada, Valia and Nandod. The sowing and reaping of most of these crops roughly coincide with the commencement and the termination of the monsoon. They are generally sown from the middle of June to the middle of July and are reaped from the middle of September to the end of November and sometimes even December, except crops like tobacco, tur, cotton and groundnut which are reaped in the months of January, February and March. In Jhagadia taluka, cotton which is sown in June is reaped in March-April of the next year. Sugarcane crop is planted in the month of February and is harvested in November.

In the central portions of the district, the *rabi* season is more important. It commences from the middle of October and terminates in the middle of February. The rainfall it receives is chiefly from the north-east monsoon and is always very scanty and does not generally exceed 3″ in a single year. The rabi crops are brought to maturity by these rains and by the moisture retained by the land during the kharif season. The rabi crops are chiefly rabi jowar, wheat, lang, tur, peas, gram, val, math, mug, castor, sesamum, and tobacco. Most of the rabi crops are sown during September-October and are reaped by January-February and March, and sometimes in April also.

The hot weather season, which commences by the middle of February and terminates by the middle of June, is not very important in this district, as the rainfall during this season is too scanty to meet the requirements of water for the hot weather crops.

SOILS.

The soils found in Broach district are as follows :—

(1) Black Cotton soil

(2) Gorat soil

(3) Bhatha soil

(4) Kyari soil

(5) Stony soil.

From the point of view of agriculture, the first four soils are important. The last named, stony soil, covers only forest areas and no cultivation is done on these soils.

The following statement shows the areas covered and results of chemical and mechanical analysis of the soils.

TABLE No. 6

SOILS OF BROACH DISTRICT—(*Area covered in acres and chemical analysis in percentage.*)

Name of the soil.	Approximate area covered in acres.	Nitrogen.	Phosphoric acid.	Potash	Lime	Sand (fine)	Sand (coarse)	Organic matters	Clay & finest silt	Fine silt	Medium silt	Coarse silt
1. Black Soil ...	7,50,000	0.50	0.074	0.077	0.398	20.70	0.37	7.60	44.36	8.08	11.84	14.50
2. Gorat Soil ...	1,00,000	0.038	0.085	0.097	0.398	63.85	0.67	4.20	14.93	3.28	5.88	11.47
3. Bhatha Soil ...	10,000	0.07	0.08	0.12	0.30	39.16	6.51	5.70	17.43	3.87	8.96	24.07
4. Kyari Soil* ...	5,000	—	—	—	—	—	—	—	—	—	—	—

* Chemical and mechanical analysis of this soil has not yet been done.

Cotton Soil.

Black soil covers the largest area in the district, that is 7,50,000 acres. Black soil is located in (i) the strip of land lying between the rivers Narmada and Dhadhar comprising the talukas of Amod and Wagra, and part of the Broach taluka; (ii) part of Jambusar taluka lying north of the Dhadhar river and in Hansot peta and part of Ankleshwar taluka lying south of the Narmada river; and (iii) Nandod taluka, Valia peta and parts of Jhagadia taluka. These soils are quite deep 3′ to 4′ and are highly retentive of moisture. Among crops grown on these soils the chief ones are jowar both rabi and kharif, wheat, paddy, lang, tur (rabi), gram, peas, sesamum (rabi) and cotton. In black soils, cotton yields per acre between 300 lbs. and 500 lbs.; Kharif jowar between 500 and 800 lbs.; rabi jowar between 400 and 600 lbs.; wheat between 300 and 500 lbs.; lang between 600 and 800 lbs.; paddy between 200 and 300 lbs.; tur between 300 and 400 lbs.; sesamum between 250 and 400 lbs.; gram between 400 and 500 lbs.; and peas between 500 and 600 lbs.

Gorat Soil.

Next in importance comes the *gorat* soil which is located in the Haveli peta of the Jambusar taluka; the Lakhigam circle of Wagra taluka; parts of Amod taluka; eastern portions of Broach taluka; some of the western portions of the Hansot peta; Nandod taluka; and parts of Jhagadia taluka and Valia Mahal. This soil covers an area of 1,00,000 acres. This soil is relatively shallow and contains more sand. Among crops grown on this trap, the chief ones are paddy, bajri, kodra, tur, mug, math, sesamum and groundnuts. In *gorat* soil, paddy crops yield per acre 600-800 lbs.; bajri 500-700 lbs.; kodra 500-800 lbs.; sesamum (kharif) 300-500 lbs.; groundnut 600-800 lbs.; tur (kharif) 400-600 lbs.; mug 200-300 lbs. and math 250-400 lbs. Looking to the average yield per acre, this soil seems to be richer and better than the black cotton soil, as yield per acre in most of the cases under this trap seems to be higher than the latter.

Bhatha Soil.

Bhatha soil is the rich alluvial silt deposited by the rivers of the district. This soil is found on the banks of the rivers Narmada, Dhadhar, Mahi and Karjan; and covers an area of 10,000 acres. Jowar, val (mixed with jowar), tobacco and vegetables like dudhi, kareli, tomatoes and brinjals are the chief crops grown on this type of soils. An acre of jowar in this trap yields 1600-2000 lbs. val 300-400 lbs. and tobacco 500-600 lbs.

Kyari Soil.

Kyari soil, though it covers a very small area in the district, is the richest soil in Broach district. It is found in parts of Jambusar, Ankleshwar, and Nandod talukas and in parts of Hansot and Valia mahals; and covers 5,000 acres only. Paddy, wheat and gram are the chief crops grown on *Kyari* lands and yield per acre in respect of those three crops has been estimated at 1200-1500 lbs. 800-1,000 lbs. and 500 to 700 lbs. respectively.

Soil erosion.

In Broach and Jambusar sub-divisions, surface soil erosion is scarce as the tract is mostly flat. However, some gully erosion is noticeable on the banks of the Mahi river in Jambusar taluka. In

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SOILS.
Soil silting.

Rajpipla Division, due to undulating and hilly nature of the land, at many places, soil erosion is noticed.

Soil silting is found on lands situated on the banks of the Narmada river and this silting up of the soils by high floods makes some lands fertile.

LAND UTILISATION.
Cultivated and Uncultivated Area.

Table No. 7 gives a statement of cultivated and uncultivated area in Broach district during the year 1955-56.

TABLE No. 7

Statement showing Cultivated and Uncultivated areas : Broach District in the year 1955-56.

Taluka	No. of Villages	Total geographical area	Cultivated area				
			Gross cropped area	Area cropped more than once	Net area sown	Current fallows	Total cultivated area
1	2	3	4	5	6	7	8
Broach ...	105	1,61,716	1,30,524	101	1,30,423	866	1,31,289
Ankleshwar ...	58	1,02,335	86,450	1,432	85,018	362	85,380
Wagra ...	69	2,22,740	1,28,993	27	1,28,966	..	1,28,966
Amod ...	55	1,14,895	93,931	50	93,881	655	94,536
Hansot ...	47	98,548	61,929	405	61,524	440	61,964
Jambusar ...	83	2,46,956	1,64,433	294	1,64,139	2,286	1,66,425
Nandod ...	227	2,79,494	1,25,415	55	1,25,360	857	1,26,217
Jhagadia ...	169	2,00,783	1,22,889	105	1,22,784	1,381	1,24,165
Valia ...	102	1,27,059	1,02,387	1,238	1,01,149	..	1,01,149
Dediapada ...	264	2,55,177	49,735	63	49,672	..	49,672
Sagbara ...	114	81,628	32,411	15	32,396	186	32,582
District Total...	1,293	18,91,331	10,99,097	3,785	10,95,312	7,033	11,02,345

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LAND UTILISATION.
Cultivated and Uncultivated Area.

TABLE No. 7 (*Contd.*)

Statement showing Cultivated and Uncultivated areas: Broach District in the year 1955-56 (Contd.)

Taluka	Uncultivated area.							
	Forests	Barren and unculturable lands	Land put to non-agricultural uses	Culturable waste	Permanent pastures and other grazing areas	Land under misc. Tree Crop and groves not included in area sown	Other fallows	Total uncultivated area
1	9	10	11	12	13	14	15	16
Broach	...	1,791	16,254	463	7,560	276	4,083	30,427
Ankleshwar	...	9,405	944	708	3,995	...	1,903	16,955
Wagra	...	76,005	1,052	809	10,681	...	5,227	93,711
Amod	...	11,821	6,428	278	1,744	...	88	20,359
Hansot ... — ...	...	27,485	44	1,834	6,683	...	538	36,584
Jambusar	...	58,230	9,568	1,725	3,145	...	7,863	80,531
Nandod	60,828	79,102	488	3,103	8,010	...	1,746	1,53,277
Jhagadia	28,964	27,883	1,569	2,963	8,080	...	6,351	75,810
Valia	6,512	8,027	1,270	5,885	3,472	205	539	25,910
Dediapada	1,19,740	65,120	5,596	9,679	...	...	5,370	2,05,505
Sagbara	...	43,883	...	4,942	...	...	221	49,046
District Total...	2,16,044	4,08,752	43,213	32,389	54,178	481	33,929	7,88,986

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LAND UTILISATION.

Cultivated and Uncultivated Area.

Of the total area of 18,91,331 acres in 1955-56, 11,02,345 acres were under cultivation, 2,16,044 acres were covered with forests, 32,389 acres were lying as wastelands, 54,178 acres were permanent pastures and grazing grounds, 481 acres were under miscellaneous tress, groves, etc., and 43,213 acres were put to non-agricultural use. The percentage of the total cultivated area to the total area of the district as a whole comes to about 58, though it varies from taluka to taluka the highest percentage being about 70 in Jambusar taluka, and the lowest being about 40 in Sagbara taluka.

The cultivated area in Broach district falls wholly under the jirayat group, as only 8,916 acres of the total of 18,91,331 acres are under irrigated farming. This shows the negligible dependence of agriculture on irrigation. The nearness to the sea, the rivers Narmada, Dhadhar and Kim and also an abundant rainfall in the hilly regions render Broach generally immune from any scarcity of crops due to failure of rains.

It is evident from the statement above that the district in 1955-56 had 2,16,044 acres covered with forests that is about 14% of total area of the district. It is interesting to note that this forest area is confined mainly to the merged talukas of Nandod, Jhagadia, Valia, and Dediapada. There were no forests in the pre-merger district of Broach.

Of the total area under forests, taluka of Dediapada alone accounts for 1,19,740 acres i.e. about 55 percent of the total and is followed by Nandod with 60,828 acres and Jhagadia with 28,964. Valia taluka has only 6,512 acres. The forests are of tropical dry deciduous type with two sub-types namely (I) dry teak forest and (II) dry mixed deciduous forest merging one into another imperceptibly. Teak is the principal species forming about 40% of the total growing stock. The principal forest produce of the forest areas held by the Forest Department is teak, timber, fuel, charcoal, grass, hirda fruit, catechu, taramind fruits, babul pods, timru and apata leaves (leaves for bidis), bamboos, moha flowers and seeds, chilari (bark for tanning) etc. and the value of forest produce in the year 1949-50 has been estimated at Rs. 3,05,500.

Culturable waste lands account for 32,389 acres i.e. little more than one percent of the total area of the district. The taluka of Dediapada alone accounts for 9,679 acres of waste lands. The talukas of Sagbara, Nandod and Jhagadia also have sizable areas lying as waste lands. The uncultivated area on account of roads, buildings and building sites etc. is more in the talukas of Jambusar, Valia, Wagra and Nandod than in the others. The taluka of Vagra has

larger areas under pastures, grazing grounds, trees and groves etc. Taking all the uncultivated area together, Dediapada and Nandod talukas have the largest uncultivated area i.e. 2,05,505 and 1,53,277 acres respectively. Ankleshwar taluka recorded the smallest uncultivated area in the district i.e. 16,955 acres.

Cropped Area.

The gross cropped area of the district in 1955-56 has been recorded as 10,99,097 acres of which 3,785 acres are cropped more than once; thus 10,95,312 acres are the net cropped area in the district. The Table No. 8 shows the area under food and non-food crops in 1955-56.

TABLE No. 8

Distribution of cropped area in each Taluka of Broach District in 1955-56.

Taluka	Kharif		Rabi		Total	
	Food crops	Non-food crops	Food crops	Non-food crops	Food crops	Non-food crops
Broach ...	12,475	7,693	30,444	79,912	42,191	87,605
Anklehwar ...	5,188	...	19,486	61,776	24,674	61,776
Wagra ...	18,001	5,403	37,012	68,577	55,013	73,980
Amod ...	1,134	61,752	23,872	7,173	25,006	68,925
Hansot ...	7,918	6,271	13,570	34,170	21,488	40,441
Jambusar ...	22,235	5,375	32,169	1,04,654	54,404	1,10,029
Nandod ...	32,918	15,038	21,519	55,940	54,437	70,978
Jhagadia ...	19,081	22,891	22,152	58,765	41,233	81,656
Valia ...	29,290	63,281	9,752	64	39,042	63,345
Dediapada ...	20,842	8,735	7,154	13,004	27,996	21,739
Sagbara ...	11,490	...	8,235	12,686	19,725	12,868
District Total ...	1,80,572	1,96,439	2,25,365	4,96,721	4,05,937	6,93,160

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Cropped Area.

One significant fact that emerges from the above table is that in Broach district non-food crops predominate over the food crops. The area under food crops in this district is reported as 4,05,937 acres i.e. about 37 percent of the total area under crops; and the remaining 6,93,160 acres i.e. about 63 percent under non-food crops. The higher percentage of non-food crop area is mainly due to the overwhelming importance of cotton in this district, which covers 5,64,454 acres i.e. about 51 percent of the total area under crops. At the time of the compilation of the last Gazetteer food crops occupied a larger area and during the last eighty years, the proportion has changed in favour of non-food crops. In 1955-56, fibres accounted for a little more than 51 percent of the cropped area, followed by cereals with about 29 percent, fodder with 9 percent, pulses with 7 percent; rest of the crops accounted only for 4 percent of the gross cropped area.

The area under food crops has been shown as 4,05,937 acres. Each of the five talukas of Nandod, Jambusar, Jhagadia, Vagra and Broach is having more than 40,000 acres of land under food crops. The highest acreage under food crops has been recorded in the Vagra taluka. Of the total area under non-food crops i.e. 6,93,160 acres, the three talukas of Jambusar, Broach and Jhagadia account for about 40 percent. It is quite interesting to note that the talukas of Jambusar, Jhagadia and Vagra have larger areas both under food and non-food crops.

The main food crops of the district are jowar, rice, bajri, kodra and wheat among cereals; tur and lang among pulses; chillies, sugarcane and vegetables. Cotton is the chief non-food crop of the district a d accounts for the largest area which a single crop commands. In fact the whole economy of the district is characterised by the overwhelming importance of this crop. Other chief non-food crops of the district are groundnut, sesamum and castorseed among oilseeds and tobacco.

Acreage under different crops.

The following Table No. 9 shows acreage under different crops in 1955-56.

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Agriculture.
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Acreage under different crops.

TABLE No. 9

Acreage under different Crops in Broach District during 1955-56

Type of Crop	Taluka											
	Broach	Ankle-shwar	Wagra	Amod	Hansot	Jambusar	Nandod	Jhagadia	Valia	Deadia-pada	Sagbara	District Total
Cereals	20,338	19,895	38,239	13,903	16,957	49,687	45,451	35,299	35,248	24,149	16,954	3,16,120
Pulses	20,787	3,305	16,687	10,888	3,617	4,435	8,330	5,375	3,562	3,755	2,658	83,399
Sugar Crops ...	7	24	—	—	—	—	27	15	3	—	5	81
Fruits	276	915	4	19	—	28	118	207	37	2	10	1,616
Vegetables	1,303	415	60	172	85	124	395	189	154	73	32	3,002
Fibres (Total) ...	77,048	49,181	68,573	61,601	32,983	98,694	54,555	55,332	46,117	11,890	8,931	5,64,905
(a) Cotton ...	77,048	49,168	68,573	61,601	32,983	98,688	54,477	55,320	46,107	11,671	8,818	5,64,454
(b) Other Fibres ...		13	—	—	—	6	78	12	10	219	113	451
Oil Seeds (Total) ...	278	3,898	162	152	1,151	2,311	5,245	4,961	3,061	1,354	3,403	25,976
(a) Edible Oil Seeds	229	3,723	71	124	1,131	2,236	5,069	4,925	3,023	548	358	21,437
(b) Non-Edible Oil Seeds	49	175	91	28	20	75	176	36	38	806	3,045	4,539
Drugs and Narcotics	401	699	78	68	51	337	519	977	64	12	1	3,207
Condiments and spices	208	120	23	24	829	130	116	148	38	17	66	1,719
Fodder Crops ...	9,878	7,998	5,167	7,104	6,256	8,687	10,659	20,386	14,103	8,483	351	99,072
TOTAL ...	1,30,524	86,450	1,28,993	93,931	61,929	1,64,433	1,25,415	1,22,889	1,02,387	49,735	32,411	10,99,097

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Agriculture.
LAND UTILISATION.
Acreage under different crops.

The following table shows the figures of acreage under different crops in Broach for the years 1874-75 and 1955-56:

TABLE No. 10

Comparative Statement showing area in acres under important crops in Broach District; 1874-75 and 1955-56

	1874-75	1955-56
Cereals—		
Jowar	78,601	1,41,712
Wheat	50,837	59,817
Rice	20,359	67,417
Bajri	16,087	21,607
Kodra	4,176	17,525
Others	N.A.	8,042
TOTAL—Cereals	1,70,060	3,16,120
Pulses—		
Tur	14,250	21,487
Others .. , .	21,530	61,912
TOTAL—Pulses	35,780	83,399
Oilseeds—		
Groundnut	N.A.	16,405
Castorseed .. ... }	936	4,539
Sesamum ... . }		4,988
Others	N.A.	44
TOTAL—Oilseeds ...	936	25,976
Fibres—		
Cotton	1,76,233	5,64,454
Hemp	28	—
Bombay Hemp ..	N.A.	281
Others ...	N.A.	170
TOTAL—Fibres ...	1,76,261	5,64,905
Tobacco	2,420	3,202
Condiments and Spices...	N.A.	1,719
Sugars—		
Sugarcane	127	51
Date Palm	N.A.	30
TOTAL—Sugars	127	81
Fruits and Vegetables	8 334	4,618
Fodder . .	N.A.	99,072
Indigo	552	—

TABLE No. 11

Quinquennial Statement of Holdings in Government Rayatwari area of Broach District 1952-53

Magnitude Groups.	CLASS "A"			CLASS "B"			CLASS "C"			TOTAL	
	Number of Persons	Area held in acres		Number of Persons	Area held in acres		Number of Persons	Area held in acres		Number of Persons.	Area held in acres.
		Khalsa	Inam		Khalsa	Inam		Khalsa	Inam		
1 Upto 5 acres	31,418	78,251	46,189	2,109	6,206	3,633	9,541	35,236	12,740	43,068	1,82,255
2 Over 5 acres and upto 15 acres	17,176	1,25,906	53,708	1,589	10,017	6,101	16,459	84,081	27,913	35,224	3,07,726
3 Over 15 acres and upto 25 acres	6,319	92,744	25,183	721	9,342	4,897	4,919	70,093	18,124	11,959	2,20,383
4 Over 25 acres and upto 100 acres	3,657	1,30,468	55,555	674	17,616	38,427	1,171	59,487	38,325	5,502	3,39,878
5 Over 100 acres and upto 500 acres	212	30,040	7,848	46	6,995	13,050	119	27,582	16,374	377	1,01,889
6 Over 500 acres	3	1,318	805	1	504	1,001	6	6,238	1,092	10	10,958
Total ...	58,785	4,58,727	1,89,288	5,140	50,680	67,109	32,215	2,82,717	1,14,568	96,140	11,63,089

CLASS "A"—Those persons who cultivate land themselves with or without the help of hired labour.
CLASS "B"—Those persons who do not cultivate land themselves, but supervise and direct cultivation by labourers or farm servants.
CLASS "C"—Those who receive rent but do not directly or indirectly take part in cultivation.

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In 1952-53, 11,63,089 acres of land, both Khalsa and Inam, were held by 96,140 persons in various size groups. These holders have been divided into three classes and there are 58,785 owner cultivators who hold 6,48,015 acres of land; 5,140 persons holding 1,17,789 acres of land cultivated under their guidance and supervision; and 32,215 persons holding 3,97,285 acres of land, rented out to tenants. Therefore, the first two classes of holders can be styled as agriculturists and the third category as non-agriculturists. It can be seen from the above statement that persons in the first two categories formed about 66.5% of the total number of holders and they held about 65.8% of the total area held in the district. Non-agriculturists formed 33.5% of the total number of holders and they accounted for 34.15% of the total area held in the district. This brings home the fact that absentee landlordism prevailed in Broach district to a great extent as about ⅓rd of the holdings were in hands of the agricultural rent receivers. Things have however radically changed after the recent legislation about ceilings on land holding.

Viewing the statement horizontally, it can be seen that the largest numbers of holders can be found in the acre group 1-5. There were 43,068 persons in this group i.e., 44.79% of the total number of holders and they accounted for 1,82,255 acres of land i.e. 15.66% of the total area held in the district. The next class was of persons coming under the acre-group 5-15; and they were 35,224 (36.63% of the total persons) accounting for a larger area i.e. 3,07,726 (26.45% of the total area held).

The acre group 25-100 accounted for the largest area held, 3,39,878 acres (29.22%) but held by 5,502 persons (5.72%) only. There were a few holdings about 500 acres and the area covered by that group was also very small. It would be seen from Table No. 11 that most of the holdings were below 15 acres and the same holds true even in the case of individual talukas.

The following is a Quinquennial statement of holdings in various talukas of Broach District for 1952-53 :—

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TABLE No. 12

Quinquennial Statement of Holdings (talukawise) of Broach District for the year 1952-53.

Acre Groups	Amod			Ankleshwar			Broach		
	Number of Persons	Area held in acres		Number of Persons	Area held in acres		Number of Persons	Area held in acres	
		Khalsa	Inam		Khalsa	Inam		Khalsa	Inam
1. Upto 5 acres	4,143	9,305	3,707	5,628	11,543	4,002	7,369	10,907	7,131-13
2. Over 5 and upto 15 acres	1,760	11,315	3,402	3,029	7,223	5,825	5,589	26,190	6,201
3. Over 15 and upto 25 acres	538	8,648	1,730	834	12,539	3,849	2,383	21,323	5,607
4. Over 25 and upto 100 acres	445	14,771	2,263	509	14,998	1,690	1,130	30,664	3,419
5. Over 100 and upto 500 acres ...	14	1,684	285	30	2,463	1,340	66	9,794	4,296
6. 500 acres and above	8	2,263	19	1	...	8,016	...	...	...
Total for all groups ...	6,908	47,950	11,406	10,051	48,766	24,155	16,537	98,878	26,654-13

TABLE No. 12 *(contd.)*

Acre Groups	Hansot			Wagra			Jambusar			Nandod		
	Number of persons	Area held in acres		Number of persons	Area held in acres		Number of persons	Area held in acres		Number of persons	Area held in acres	
		Khalsa	Inam		Khalsa	Inam		Khalsa	Inam		Khalsa	Inam
1.	3,534	5,139- 9	2,743- 1	3,163	5,899	3,972	5,583	5,583	4,150	3,129	8,402	13,704
2.	1,582	8,529-30	3,350- 6	1,980	10,257	5,758	3,235	9,904	6,065	2,449	11,901	33,241
3.	413	5,401-39	1,405-22	862	16,085	6,584	959	10,347	6,415	576	14,293	12,827
4.	308	52,651-30	2,162-24	629	20,604	8,863	558	23,481	14,082	493	13,808	20,984
5.	23	1,823-24	569-32	84	4,464	13,229	63	4,983	2,677	32	3,709	6,820
6.	...	...	...	8	586	...	...	...	...	3	1,508	2,234
	5,860	73,346-12	10,231-25	6,726	57,895	38,406	10,398	54,298	33,489	6,673	59,721	89,810

TABLE No. 12 (contd.)

Acre Groups.	Jhagadia			Dediapada			Sagbara			Valia		
	Number of persons	Area held in acres		Number of persons	Area held in acres		Number of persons	Area held in acres		Number of persons	Area held in acres	
		Khalsa	Inam		Khalsa	Inam		Khalsa	Inam		Khalsa	Inam
1.	5,151	9,638-20	3,132-15	1,359	6,478	192	375	1,291-21	63-16	2,596	1,10,084	5,508
2.	3,069	23,787-37	3,958-12	1,639	15,969	773	787	8,155- 7	390- 8	2,552	30,700	7,093
3.	868	14,707-16	2,130-22	480	8,424	456	227	3,911-13	311-23	635	12,780	2,937
4.	795	29,555-35	3,499- 4	182	6,219	248	84	3,278-15	244- 5	212	16,200	1,000
5.	49	8,305-15	693-23	18	2,608	...	7	725-18	395-16	32	1,667	...
6.	20	1,328-14	...	1	817	...	...	...	...	...	...	...
	9,934	87,323-22	13,413-36	3,679	40,515	1,669	1,480	17,361-34	1,404-38	6,027	80,431	16,538

It is clear from the talukawise statement of holdings that holdings in all the talukas of the district are small and are almost all below 15 acres. A larger number of holdings below five acres are found in Amod, Ankleshwar, Broach, Hansot, Vagra, Jambusar, Nandod and Jhagadia; and this may be due to the fact that as these areas lie in the alluvial plains of the district, a smaller area comprises an economic unit. The forest areas of Dediapada and Sagbara have a larger number of holdings in acre group 5-15. The taluka of Valia has almost an equal number of holdings under both of the foregoing acre groups. In Broach and Sagbara talukas, quite a big number of holdings are in the acre group 15-25 acres. Large holdings in the acre group above 500 acres are to be found only in the five talukas of the district namely Ankleshwar, Wagra, Amod, Nandod and Dediapada.

The size of holdings in this district varies from taluka to taluka according to the conditions of the monsoon, soil, crop pattern, financial condition of the ryots and the extent of absentee landlordism prevailing in the talukas. On the whole, the greater portion of the land is held by persons having holdings between one and fifteen acres. Holdings in most of the talukas are small and they are so divided among the family members and in some cases, scattered in fragments over the village and taluka and even different talukas, and in rare cases also over adjoining districts, that the size of a holding does not give an accurate guide to the average size of the unit of cultivation.

The average size of the holdings for the district as a whole works out at 12.09 acres. A sample survey of the holdings in the Gujarat districts of the State conducted by the Bureau of Economics and Statistics, Government of Bombay in 1948, shows that the average size of the holdings in Broach district came to 9.57 acres. The average number of fragments per holding in Broach district was estimated at 4.82, the average area for each fragment being 2.00 acres. This shows the extent to which land is sub-divided and fragmented in Broach district making the unit of cultivation very small. Since 1948, the average size of holdings has increased to 12.09 acres. The increase in the size seems to be due to the merger of Rajpipla State during 1949 where there are large forest areas. The size of the holding has to be bigger because of the unproductive nature of the areas.

Prevention of Fragmentation and Consolidation of Holdings.

In 1947, the Government of Bombay enacted a law called the Bombay Prevention of Fragmentation and Consolidation of Holdings Act, with a view to starting the process of consolidation of holdings.

The first part of the law deals with prevention of further fragmentation of land. Government has been empowered to fix the "standard area" (i.e. the minimum area necessary for profitable cultivation as a separate plot) for any class of land in any local area.

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HOLDINGS.
Prevention of Fragmentation and Consolidation of holdings.

The "standard area" is such as is expected to keep the cultivator fully employed on the field, and the yield from it is expected to be sufficient to cover the cost of cultivation and Government revenue assessment and yield a reasonable profit. On account of difference in quality of soil, climate, standard of husbandry and other factors, the standard areas for different types of land vary from district to district. The range of acreage of the standard areas applicable to various types of land is as follows:—

Dry crop, from one to four acres; rich, from one guntha to one acre; garden, from five gunthas to one acre; and *varkas* from two acres to six acres.

Under the law, the standard areas are fixed by the Collector in consultation with the District Advisory Committee and after consideration of any objection from the public to his provisional figures which have to be published for general information inviting objections. All existing holdings which are smaller than the standard area are declared as fragments and entered in the record of rights as such and the fact notified to the fragment holders. The fragment holder and his heir can cultivate and inherit the fragment, but if at any time the fragment holder or his heir wants to sell or lease the fragment, it must be sold or leased to a contiguous holder who can merge it with his field. In case the contiguous holder is unwilling to take it or purposely makes a low bid, Government purchases the fragment in question at the market value according to the provisions of the Land Acquisition Act, 1894, and leases it out to any of the neighbouring holders. In this process tenants of the fragments are protected; they are not to be discontinued. Creation of fragments in future is prohibited. It cannot be done either by transfer or partition. Transfer or partition contrary to the provisions of the Act is void and persons guilty of the breach of the law are liable to pay a fine up to Rs. 250.

Side by side, the Act also provides for the consolidation of holdings into compact blocks. This involves valuation of all holdings in a village and then redistribution in such a manner as to secure to each cultivator the same return from land which he had got previous to the consolidation. Every effort is made to ensure that exchange is made only of lands of equal fertility and outturn. Where such exchange is not possible, compensation is paid to the owner who is allotted a holding of less market value than his original holding and this compensation is recovered from the owner who is allotted the holding which has greater value than his original holding. This amount of compensation is fixed according to the provisions of the Land Aquisition Act. After the process of consolidation is over, the tenure of the original holding is transferred to the new consolidated holding. Similarly, leases, debts and encumbrances, if any, are also transferred, adjusted and fixed up. The interests of tenants are safeguarded as far as possible and tenancies are usually transferred to the exchanged land. If there is any difference in

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Prevention of Fragmentation and Consolidation of holdings.

value between the original holdings and the exchanged ones, adjustments in rents are made.

The Bombay Prevention of Fragmentation and Consolidation of Holdings Act of 1947 has been in operation in this district since 1949. The progress of the work of consolidation and prevention of fragmentation of holdings is as follows (1953):

The first part of the Act has been applied to all the talukas of Broach district. Standard areas have been finally fixed under section 5(3) of the Act and notices under section 6(2) have been issued to the fragment holders in almost all the villages. The fragments have been entered into the Record of Rights and the Revenue Department is watching and supervising the implementation of the Act.

The second part of the Act has been applied to and notified in respect of Wagra taluka (in 1949), Broach taluka (in 1949) and Ankleshwar taluka (in 1954).

Following are the villages where the consolidation schemes have been executed:—

1.	Khad Khandali ...	T. Vagra.
2.	Limbal ...	,,
3.	Sadathala ...	,,
4.	Kothia ...	,,
5.	Kuvadar ...	T. Broach

Following is the list of villages whose schemes of consolidation were prepared in 1953 and were to be executed thereafter :—

1.	Victhiad ...	T. Vagra
2.	Sutral ...	,,
3.	Pisad ..	,,

Following is the list of villages whose schemes of consolidation were published in 1953 but had to be confirmed thereafter :—

1.	Rahad ...	T. Vagra.	7.	Pipalia ...	T. Vagra.
2.	Vachhanad ..	,,	8.	Samatpore ...	,,
3.	Juned ...	,,	9.	Galenda ...	,,
4.	Saladra ...	,,	10.	Bhersam ...	,,
5.	Saran ...	,,	11.	Ankot ...	,,
6.	Sayakha ...	,,			

Following are the villages whose schemes of consolidation were being prepared in 1953 :—

1.	Sachan ...	T. Vagra.
2.	Ora ...	,,
3.	Sambheti ...	,,
4.	Vilayyat ...	,,

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Agriculture.
HOLDINGS.
Consolidation.

The following table shows the progress of Consolidation in Broach District since August, 1953.

TABLE NO. 13

Progress of Consolidation in Broach District since 27th August, 1953.

Year	Taluka	Number of villages for which schemes were prepared since August, 1953*	Number of villages in which schemes were executed since August, 1953*	Number of holdings before consolidation	Number of blocks formed after consolidation
1	2	3	4	5	6
1953-54	Broach ...	4	...	...	...
	Wagra ...	2	...	...	...
1954-55	Amod (Mahal) ...	1	...	...	...
	Ankleshwar* ...	13	...	...	...
	Broach ...	5	2	2,703	1,264
	Wagra ...	7	1	411	287
1955-56	Amod ...	...	1	882	3,113
	Ankleshwar ...	7	...	...	...
	Broach ...	4	4	2,210	1,022
	Wagra ...	2	6	2,521	1,321
1956-57	Ankleshwar ...	9	4	670	396
	Broach ...	3	4	2,877	1,431
	Wagra ...	2	2	2,202	854
1957-58	Ankleshwar ...	...	2	1,722	1,065
	Broach ...	...	1	872	354
	Wagra ...	2	...	...	...
	Grand Total ...	61	27	17,070	8,307

By 1957-58, schemes had been prepared for 61 villages while the number of schemes actually executed during the same period was 51. These 51 schemes also include those 24 schemes which were prepared and whose execution had commenced before August, 1953. Under the remaining 27 schemes, which were prepared and executed in the period under question, 17,070 holdings were formed into 8,307 blocks after consolidation.

CEREALS.

In Broach district, cereals occupied an area of 3,16,120 acres of land i.e. about 29 per cent of the total cropped area in the year 1955-56. The chief cereals grown in the district are jowar, rice, bajri, kodra and wheat. The following statement shows the area under cereals in Broach district for the years 1955-56 :—

*In Ankleshwar Taluka, consolidation work was started only from July, 1954.

CHAPTER 5.
Agriculture.
CEREALS.
Acreage.
(taluka-wise)

TABLE No. 14

Area in acres under Cereals in each taluka of Broach District in 1955-56.

Type of Cereals	Taluka											
	Broach	Ankleshwar	Wagra	Amod	Hansot	Jambusar	Nandod	Jhagadia	Valia	Dediapada	Sagbara	District Total
Rice	1,511	2,146	77	710	546	8,592	12,587	9,175	11,284	11,501	9,288	67,417
Wheat	3,649	3,274	23,355	2,949	5,652	18,315	74	910	607	76	956	59,817
Jowar—												
(a) Kharif	365	2,221	225	...	5,630	...	3,842	1,680	13,219	721	35	27,938
(b) Rabi	14,733	11,712	13,664	9,847	4,710	9,135	14,231	19,800	8,254	3,108	4,580	1,13,774
(c) Total	15,098	13,933	13,889	9,847	10,340	9,135	18,073	21,480	21,473	3,829	4,615	1,41,712
Bajri	29	337	904	320	418	7,040	10,571	1,723	177	83	5	21,607
Maize	...	15	...	...	...	11	1,429	461	269	815	229	3,229
Ragi	...	3	...	...	...	2	...	...	...	...	...	5
Italian Millets ...	...	4	...	...	...	9	152	6	...	...	...	171
Kodo or Varagu (Kodra). ...	51	179	14	77	1	6,568	2,249	1,490	1,208	4,177	1,511	17,525
Sava	...	3	...	...	...	...	...	...	...	...	...	3
Banti	...	...	...	...	...	15	221	19	230	1,179	219	1,883
Bhadli	...	...	...	...	...	...	...	...	...	62	24	86
Other Cereals—												
(a) Kharif	...	1	...	...	...	...	95	35	...	2,427	107	2,665
(b) Rabi	...	...	...	...	...	...	...	...	...	...	...	...
(c) Total	...	1	...	...	...	...	95	35	...	2,427	107	2,665
Total Cereals ...	20,338	19,895	38,239	13,903	16,957	49,687	45,451	35,299	35,248	24,149	16,954	3,16,120

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Agriculture.
CEREALS.
Bajri.

Bajri (spiked millet) is an important grain crop of the district, yielding rank only to jowar and rice. It covered an area of 21,607 acres in the year 1955-56 and is grown all over the district except the Sagbara peta; but the talukas of Nandod and Jambusar have larger acreage under this crop than other talukas. The Nandod taluka alone accounts for 10,571 acres under *bajri*. *Bajri* compares very favourably with jower as a food but its stem makes a poor fodder. It is a finer grain and requires more careful tillage. It is usually sown in the month of August and, when the crop is of some height during the same month, the fields are intercultured and weeds and grass are removed. The crop is harvested by the second fortnight of October. *Bajri* plants are cut from the ground, tried into bundles and carried to the threshing yard where the earheads are nipped and spread for drying up. The crop seldom requires irrigation and manuring. *Bajri* is practically always a mixed crop, sown with tur, til and other oilseeds and pulses. Different systems of mixtures are prevalent in different talukas. The Agricultural Department has introduced an improved variety, known as Nadiad-207 which is fast replacing the local one (called *deshi* variety). Though *bajri* requires more careful tillage, ploughing etc., it yields a larger crop than other cereals. The average yield of *bajri* has been estimated at 2 Bengali maunds and 10 seers per acre.

The green ears of *bajri* are often parched and eaten. The ripe *bajri* grains are some times parched. *Bajri* is chiefly used as a bread grain.

Banti.

Dangar (rice) is one of the chief crops of the district and, among has been confined only to the hilly forest areas of the district. It covered an area of 1,883 acres of which 1,179 were in Dediapada Taluka alone. This crop is not grown in the talukas of Broach, Ankleshwar, Wagra, Amod, and Hansot. It is usually sown in the month of June and is harvested during the months of September, October and November.

Dangar.

Dangar (rice) is one of the chief crops of the district and, among cereals, ranks only next to jowar. In 1955-56, it covered an area of 67,417 acres and larger areas of this crop are to be found in the hilly and the forest regions in the south-east of the district. Of the total area under rice, the talukas of Nandod, Valia, Dediapada, Sagbara and Jhagadia—all coming from the merged Rajpipla State—together account for more than 50 per cent of total coverage. Among the remaining talukas, Jambusar only has got a sizable area of 8,592 acres under this crop, though rice is grown in almost all talukas of the district. It is interesting to note that in Broach district sometimes paddy is grown along with cotton, *kodra*, pulses (like tur), *udid* and *chavali* and sesamum. Paddy lands are not ploughed as a rule but are harrowed once or twice in the months of May and June.

Paddy is sown usually in the second fortnight of June. Seeds are sown with the help of a two-coultered drill, if sown along with

cotton; otherwise a three-coultered drill is used for entire paddy crop. Paddy lands are not usually irrigated. In the months of July and August, the fields are weeded twice or thrice and interculturings are also given two or three times. The paddy crop is harvested during the months of September and October. The chief local varieties of rice grown in this district are *dudhani*, *sathe*, *kada*, *kolum* and K-184. K-184 variety is of the finer and high yielding type. Others are coarser varieties and are grown in open fields. Of these local varieties, *sathe* and *dhudhani* are the most prevalent ones. Recently, the Department of Agriculture has introduced an improved strain namely Z-31 which is extremely suitable for area whose supply of water is assured. But this variety has not yet made much headway as only in 1951-52, 200 acres were reported to be under this variety. The average yield per acre in this district comes to 1 Bengali maund and 5 seers.

Ghau.

Ghau (wheat) is an important cold weather crop of Broach district. Out of the total acreage of 59,817, Jambusar and Vagra talukas alone account for 41,670 acres under this crop. Wheat is sown in October and November with the help of two-coultered seed drill. It is harvested in March by uprooting the whole plant. The plants are tied into bundles and carried to the threshing floor. Wheat is often rotated with cotton and *lang* in a three year rotation and with paddy and jowar in a two year rotation. Often mustard, rapeseed and gram are grown along with wheat. The chief among the varieties that are grown in the district are the local ones. The Agricultural Department has for sometimes past been trying to cover the area by improved and rust resistant varieties of wheat, namely, Niphad-4 and Gulab-224; but on account of decline in cultivation of wheat itself, not much headway has been made by them towards introduction of these two varieties. The Niphad-4 is a better quality so far as yield of grain and *bhusa* is concerned and also responds well to manuring. The Gulab-224 yields well on heavier soils.

Juwar.

Juwar (Indian millet-jowar) is the most widely grown cereal in Broach district. In 1955-56, this crop covered 1,41,712 acres of land in the district. Though it is grown all over the district, it is the staple grain of the central plains of the district and the areas of concentrated cultivation are in the talukas of Wagra, Ankleshwar, Jambusar, Jhagadia and Hansot Mahal. In the hilly and woody areas of Sagbara and Dediapada talukas it is grown in smaller quantities. There are many varieties of jowar grown in the district; some are

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Juwar.

early ones (*kharif*) and others are late ones (*rabi*). The *rabi* jowar is grown throughout the district and covers 1,13,774 acres; *kharif* jowar is chiefly grown in the alluvial plains of the centre only. *Kharif* jowar covers 27,938 acres and is largely found in Ankleshwar taluka and Hansot and Valia mahals.

Kharif jowar is sown in July-August with the help of two-coultered seed drill and the seeds are left uncovered for germination. The ear-heads, when ripe, are nipped from the plants in the months of December-January and then the plants are pulled out. The local *kharif* jowar is known as *chomasu* jowar and the Agricultural Department is trying to replace this by jowar B. P. 53 which has larger ear-heads and also yields 10 to 13 per cent more than the local varieties. The yield per acre of *kharif* jowar in Broach district has been estimated at 1 Bengali maund and 15 seers.

Rabi jowar covered an area of 1,13,774 acres. It is sown in September and October with the help of two-coultered seed drill. This jowar is sown in rows and the distance between two rows usually varies between 18" and 24". *Rabi* jowar is harvested in February in the same manner as the *kharif* jowar. The local variety is a non-descript one. The Agricultural Department has recently introduced Jowar No. 8 as an improved one. This variety is becoming popular as it has dwarf growth with compact ear-heads and yields sweeter and larger fodder. The average yield per acre of *rabi* jowar has been estimated at 1 Bengali maund and 20 seers.

Jowar in this district succeeds best after cotton. After jowar the land, if not manured, is left fallow or a crop of gram, sesamum, tur or wheat is sown. In a three-year rotation, jowar is usually followed by cotton and *lang* or wheat and cotton. It is often rotated by tobacco, paddy, pulses, wheat and *lang*. Jowar, particularly *kharif*, is often sown mixed with pulses like *val*, mug, tur, *chavli* and castorseed.

Kodra.

Kodra is another important cereal crop of the district and covers an area of 17,525 acres of land. It is extensively grown in the hilly and forest areas of Jambusar, Dediapada, Nandod and Sagbara and is sparsely grown in the alluvial plains of the district. Kodra is particularly well adopted for the poorest soils under favourable conditions of climate and rainfall. In Broach district *kodra* is always sown, mixed, by about middle of June to July. The usual mixture is *kodra*, tur and til (sesamum). If an entire crop, it is sown in lines at a distrance of 12"; but, when mixed with tur and sesamum, the distance is usually 12" to 18" in between rows. The *kodra* crop is harvested in the months of October and November. The grain as well as straw of *kodra* frequently, if not always, contain a poisonous narcotic which causes vomiting and vertigo. It is generally consumed only by the poor.

Makai.

Makai (maize) covers 3,229 acres of land in this district of which 1,429 acres are in Nandod taluka and 815 acres in Dediapada

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taluka. Maize is grown mainly in the southern and eastern hilly regions of the district and is seldom grown in the plains. It is a *kharif* crop and is usually sown alone in June-July and reaped in the months of August-September. Harvesting sometimes extends to October even. It is usually an entire crop as its quick growth does not make it a good companion for subordinate mixtures. Kharif maize is usually followed by *rabi* crop of tobacco in Nandod taluka and by pulses in Dediapada taluka. As a good crop, it contains more fat than other cereals and, as fodder, it ranks next only to jowar.

Besides, there are some minor cereals which are grown in this district. They are *pavta, bhadli,* morio and *vari* and cover rather negligible areas.

PULSES.

Broach district grows a variety of pulses. In the year 1955-56, pulses covered 83,399 acres of land or about 8 per cent of gross cropped area of the district. The chief among the pulses grown in the district are *tuver, lang, math,* gram, *mag, adad* and *val.* The following statement shows the area under various pulses in the district.

TABLE No. 15

Area in acres under pulses in each taluka of Broach District in 1955-56.

Taluka	Gram	Green-Gram or Mag	Tur (Arhar)	Black Gram or Adad (Mash)	Math	Val	Chavli	Watana	Lakh	Total Pulses
Broach	253	41	1,628	9	104	525	78	982	17,167	20,787
Ankleshwar	206	154	1,109	7	58	234	67	16	1,454	3,305
Wagra	310	7	213	26	29	28	3	462	15,609	16,687
Amod	101	11	571	...	175	38	17	322	9,653	10,888
Hansot	86	105	482	...	39	141	16	24	2,680	3,617
Jambusar	292	15	2,305	61	1,063	12	62	1	624	4,435
Nandod	170	1,141	4,969	521	1,231	147	127	24	...	8,330
Jhagadia	135	260	3,780	150	463	432	39	16	...	5,375
Valia	143	252	1,730	439	180	648	170	...	...	3,562
Dediapada	915	6	2,597	80	7	...	150	...	...	3,755
Sagbara	547	3	2,103	5	...	...	...	...	...	2,658
District Total ...	3,158	1,995	21,487	1,398	3,349	2,205	773	1,847	47,187	83,399

CHAPTER 5. Agriculture. PULSES. Adad.

Adad (black gram - udid) covers an area of 1,398 acres of which 521 acres are in Nandod, 439 in Valia mahal and 150 in Jhagadia taluka. Udid is sown in the months of June-July, sometimes mixed with bajri and jowar. It is neither manured nor watered. It is harvested in the months of October and November.

Chana.

Chana (gram) is one of the most largely grown pulses in the district and covered 3,158 acres in the district in the year 1955-56. Though it is cultivated in all the talukas of the district, larger areas under it are found in Sagbara mahal, Nandod, Broach and Dediapada talukas, and Valia mahal. Gram in this district, as in other Gujarat districts, is cultivated as a second dry crop usually after rice, but occasionally on dry crop land after the *kharif* crop of wheat. The crop does well on alluvial soil of rice beds when these are clay loams. It is sown as a dry crop in the month of October with the help of a plough in lines 18 inches apart. It is harvested in January and February by uprooting the plants. The grain is eaten green and, when ripe, it is split into pulses. Gram is a staple food of horses. The plants yield a quantity of vinegar or oxalic acid which gathers on the plants at night and soaks the clothes which are laid over them.

Lang.

Lang (chickling vetch) is an important *rabi* pulse crop of the district and is mainly cultivated in the talukas of Broach, Amod and Wagra. In the year 1955-56, *lang* covered an area of 47,187 acres out of which more than 32,000 acres were reported to be in the talukas of Broach and Wagra. The cultivation of this pulse is mainly concentrated in the areas of former Broach district.

The crop generally follows cotton though it is also grown to a very small extent after jowar and wheat. Cotton following *lang* gives better yields and is said to keep the soil in fit condition. *Lang* thrives better in heavy black cotton soils with 30"-40" of rainfall. The crop being a leguminous one, no manure is given to it. Lands intended for *lang* cultivation are harrowed twice during July and August and again harrowed three or four times during and after the cessation of monsoon. *Lang* is normally sown in October-November with a seed drill. It is sown in rows and the distance between the two rows varies between 9" and 18". The variety that is grown at present is the local non-descript one. The Agricultural Department has evolved a wilt-resistant strain, *lang* Z-12. Generally no inter-culturings are given but if weeds are noticed, they are removed by hand picking. The crop is ready in January-February and is harvested by uprooting the same in February. The plants are tied in bundles and they are allowed to dry for about a week and then carried to the threshing yard where threshing is done under the feet of bullocks. The grain is there separated from the chaff by winnowing against the breeze. *Lang* is mainly exported outside the district and very little quantity is consumed locally as it is believed to cause rheumatism. The fodder is said to be very nutritious for cattle.

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The *lang* crop is susceptible to powdery mildew and the pod caterpillar. The average yield of this crop per acre varies from 5 bengali maunds to 8 bengali maunds of grain and from 8 to 10 maunds of fodder.

Mag.

Mag (green gram-mug) is chiefly grown in the talukas of Nandod, Jhagadia and Valia. It covered an area of 1,995 acres of which 1,141 were in Nandod, 260 in Jhagadia and 252 in Valia. It is sown as a *kharif* crop in some parts of the district in the month of June and is harvested in September, October and November. In some parts it is sown in the month of October and harvested in February-March. The Agricultural Department is trying to introduce the improved china Mag which is superior to the local one both in respect of quality as well as yield. Mag like other pulses, can be eaten green as a vegetable and as a split dal when ripe.

Math.

Math (Kidney bean) is another important pulse crop of the district, yielding place only to tur and *lang*. It covered an area of 3,349 acres in 1955-56, of which 1,231 acres were in Nandod taluka and 1,063 in Jambusar taluka. This crop is grown throughout the district except the talukas of Sagbara and Dediapada. It is usually sown mixed with bajri in shallow black or light stony soils. *Math* is a *kharif* as well as a *rabi* crop. *Kharif math* is sown in the months of June-July and is harvested in the months of October-November. *Rabi math* is sown in October and is harvested in February-March. The grain is eaten whole and is also split to be consumed as dal or pulse in different ways. It is also parched and eaten. Occasionally, it is given to horses and cattle.

Tuver.

Tuver (pigeon pea-tur) is the most largely grown pulse crop of this district. It covered 21,487 acres in 1955-56 or about 40 per cent of the total area under pulses. Tur is grown both as a *kharif* as well as *rabi crop*. Though tur is grown in all talukas of the district, comparatively large areas are to be found in the talukas of Nandod, Jhagadia, Broach, Sagbara, and Jambusar. *Kharif* tur, is to be found mainly in Hansot, Jambusar, Jhagadia and Sagbara, whereas *rabi* tur is more widely grown and large areas under this are to be found in Nandod, Broach, Valia, Dediapada and Ankleshwar. Tur is often sown along with sesamum, cotton, jowar, bajri, *math, kodra, mug, lang*, and other pulses. As a rotation crop, mixed with sesamum it follows bajri.

Tuver, when taken in the *kharif* season-usually a mixed crop — is sown in the months of June-July and is harvested in the months of January-February. *Rabi tuver,* also sown with sesamum, is usually sown in the months of September-October and harvested in the month of March. Sowing is done with the help of two-coultered seed drill and the crop is harvested by cutting the plants from the ground. It stands in the forefront among pulses as a restorative rotation crop. The crop resists drought in a remarkable degree and is usually grown without much risk of damage by diseases or other mishaps. The green grain is eaten as a vegetable and ripe tur is

split up into pulse and eaten in a variety of ways. It is generally taken alone in the boiled form and sometimes mixed with vegetables.

Val (Indian bean) is grown on 2,205 acres in Broach district of which 648 acres are to be found in Valia taluka, 525 in Broach taluka and 432 in Jhagadia taluka. *Val* is sown both in *rabi* and *kharif* season. *Kharif val* is sown in the month of June and harvested in October but, when taken in *rabi* season, it is sown in September-October and harvested in February-March. The principal crop is the *rabi* crop and it is sown along with wheat as a second crop in rice fields. *Val* is also sown in ordinary dry crop fields either alone or mixed with castorseed. In the riverside alluvial land, *val*, castor and tur are very common subordinate crops to jowar and bajri. *Val* is a delicate crop and is liable to attack by insects and is also damaged by cloudy weather. *Val* seeds are slightly bitter and rather small and are used as dal.

Besides these pulses, Broach also grows *chola* on 773 acres and *watana* on 1,847 acres. *Chola* is grown throughout the district except in Dediapada taluka and Sagbara mahal. The cultivation of *watana* is mostly concentrated in the talukas of Vagra and Broach though small quantities are grown in the talukas of Ankleshwar, Hansot, Jambusar and Nandod.

OILSEEDS.

Oilseeds in Broach district covered in 1955-56 an area of 25,976 acres i.e. little more than 2 per cent of the gross total cropped area of the district. The chief among the oilseeds grown in the district are groundnut, sesamum, and castorseed. The following table shows the area under various oilseeds in Broach district for the year 1955-56.

TABLE NO. 16

Areas in acres under Oil Seeds in each Taluka of Broach District in 1955-56

Taluka	Edible Oil Seeds						Non-edible	Total Oil-Seeds
	Ground-nut	Coco-nut	Sesa-mum	Must-ard	Others	Total	Castor	
Broach	151	—	77	1	—	229	49	278
Ankleshwar	3,156	3	556	4	4	3,723	175	3,898
Wagra	16	—	54	1	—	71	91	162
Amod	40	—	83	1	—	124	28	152
Hansot	959	—	171	1	—	1,131	20	1,151
Jambusar	5	—	2,225	6	—	2,236	75	2,311
Nandod	4,453	—	594	4	18	5,069	176	5,245
Jhagadia	4,180	—	745	—	—	4,925	36	4,961
Valia	2,911	—	111	1	—	3,023	39	3,061
Dediapada	311	—	237	—	—	548	806	1,354
Sagbara	223	—	135	—	—	358	3,045	3,403
District Total	16,405	3	4,988	19	22	21,437	4,539	25,976

Diveli (castorseed) is an important oilseed crop of the district and in importance ranks only next to groundnut and sesamum. In 1955-56, it covered an area of 4,539 acres. Though it is grown in

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all the talukas of the district, Sagbara mahal alone accounts for 3,045 acres out of the total area under this crop. Other talukas where castorseed is grown on relatively larger areas are Dediapada, Jambusar and Wagra. It is both a *rabi* as well as a *kharif* crop. Castorseed, when sown as a *kharif* crop, is sown in the month of June and is harvested in November and December. When taken as *rabi* crop, it is sown in October-November and harvested in the months of March, April and May. Castor is usually sown with cotton in the *kharif* season and with jowar and gram in the *rabi* season. In some parts of the district, castorseed follows paddy in two years, rotation. The seed when crushed yields an oil which is largely used for lighting purpose and as lubricant also. Castor oil is also used for medicinal purposes and soapmaking; the oil cake is a concentrated manure and is largely utilized as such in garden and sugarcane cultivation.

Magfali.

Magfali (groundnut) is the most largely cultivated oilseed of the district and covers more than half of the district's area under oil seeds. In the year 1955-56, this crop covered an area of 16,400 acres and its cultivation is chiefly concentrated in the Rajpipla subdivision and Ankleshwar taluka. Nandod taluka alone accounts for 4,453 acres and is followed by Jhagadia with 4,180 acres, Ankleshwar with 3,156 acres and Valia taluka with 2,911 acres. Groundnut does well on light and medium soils. It is a *kharif* crop and is sown with the first fall of rain in June-July. Groundnut crop is harvested in November by uprooting the plants with the help of harrow and picking the pods from the plants. Groundnut in this district is an entire crop and is never sown along with other crops. It serves very well as a rotation crop. In two years' rotation groundnut follows cotton, cotton-paddy and jowar and in a three years' rotation it follows cotton and jowar in the third year. The varieties that are grown in the district are the local ones both spreading and erect ones. No effort has yet been made towards introduction of better and improved varieties. The average yield per acre of groundnut has been estimated at 1 Bengali md. 10 seers but it has potentialities of increase with better manures and better cultivation. The ripe fresh nut is often eaten parched and sometimes boiled with condiments and eaten as a vegetable. But it is more frequently used as an oilseed. Groundnut cake is a very highly concentrated nitrogenous food and in moderate quantity is excellent for milch cattle.

Tal.

Tal (sesamum)is grown throughout the district and covered 4,988 acres of land in 1955-56, nearly half of which was in the talukas of Jambusar and Jhagadia. It is also grown over considerable areas in the talukas of Nandod and Ankleshwar. As a *kharif* crop, it thrives well on sandy or light soils and is sown in June-July, in alternate rows with tur and *kodra*, distance between rows being 18"-20". It is harvested in October-November by cutting the plants with sickles. *Rabi* sesamum, usually with tur, is sown in alternate rows 4 to 6 feet apart in the month of August and harvested in the months of March-April. Sesamum is usually a mixed crop in this district and

is usually sown along with tur, kodra and bajri. It is also grown along with rajgira, rice, cotton and other pulses. It serves as a rotation crop along with tur after bajri in a two years' rotation and after two successive seasons of cotton in a three years' rotation. Tal seed is used in *Shraddha* (post funeral offerings), and also forms part of many sweet-meats. Sesamum yields abundant oil which is both used in cooking and as a medicine. The oilcake is given to cattle.

Sarsave (mustard) and *Kasambi* (Safflower) are grown in this district in negligible areas.

DRUGS AND NARCOTICS.

Broach district had only, 3,207 acres under drugs and narcotics in the year 1955-56 and the only crop under this head is tobacco; *ajwan* covered only five acres. The following table gives area under drugs and narcotics in the district:—

TABLE No. 17

Area in acres under Drugs and Narcotics in each taluka of Broach District in 1955-56

Taluka	Tobacco	Ajwan	Total Drugs and Narcotics
Broach	401	—	401
Ankleshwar	696	3	699
Vagra	78	—	78
Amod	68	—	68
Hansot	51	—	51
Jambusar	337	—	337
Nandod	519	—	519
Jhagadia	975	2	977
Valia	64	—	64
Dediapada	12	—	12
Sagbara	1	—	1
District Total ...	3,202	5	3,207

Tamaku.

Tamaku (tobacco) is the only drug crop grown on a very limited area of 3,202 acres. Of this, Jhagadia taluka with 975 acres accounts for a little less than one-third of the area. The other areas where tobacco is grown on some significant scale are the talukas of Broach, Ankleshwar, and Nandod. Tobacco is grown in both *kharif* and *rabi* seasons. The Broach tobacco is grown chiefly on the banks of the Narmada on *bhatha* land which is alluvium of sandy loam consistence brought down by annual floods and found on the shelving banks of rivers. The seed is sown in July and transplanting is done by middle of August. The plants are ready for harvest between January and March. The *rabi* tobacco which is a minor crop is sown in the month of October and is harvested in the months of March-April.

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SUGARS.

Broach district does not have much area under sugarcane and datepalm. Only 81 acres were reported to be under these crops in the year 1955-56, of which 51 acres were under *sherdi* (sugarcane) and 30 under *khajuri* (datepalm). Sugarcane was grown only on a small scale, in the talukas of Broach, Ankleshwar, Nandod, Jhagadia and Valia mahal. Nandod accounted for the largest area of 27 acres under sugarcane. *Khajuri* (datepalm) was grown only in the talukas of Ankleshwar and Jhagadia, Ankleshwar accounting for 21 acres and Jhagadia 9 acres. The following table gives the area under sugarcane and datepalm in Broach district :—

TABLE No. 18

Area in acres under Sugar Crops in each Taluka of Broach District in 1955-56

Taluka	Sugarcane	Other Sugars	Total Sugars
Broach	7	—	7
Ankleshwar	3	21	24
Wagra	—	—	—
Amod	—	—	—
Hansot	—	—	—
Jambusar	—	—	—
Nandod	27	—	27
Jhagadia	6	9	15
Valia	3	—	3
Dediapada	—	—	—
Sagbara	5	—	5
District Total	51	30	81

CONDIMENTS AND SPICES.

Condiments and spices occupy relatively a very small area in Broach district. In 1955-56, only 1,719 acres were reported to be under condiments and spices. Chillies are the only important crop among this group. The following table gives the area under condiments and spices in Broach district.

TABLE No. 19

Area in acres under Condiments and Spices in each Taluka of Broach District in 1955-56.

Taluka	Chillies	Ginger	Turmeric	Garlic	Other Condi-ments and Spices.	Total-Condi ments and Spices
Broach ...	182	—	8	18	—	208
Ankleshwar ...	100	5	5	6	4	120
Wagra ...	18	—	4	1	—	23
Amod ..	19	—	5	—	—	24
Hasnot ...	826	—	2	1	—	829
Jambusar ...	128	2	—	—	—	130
Nandod ...	100	2	4	10	—	116
Jhagadia ...	141	1	1	5	—	148
Valia ...	38	—	—	—	-	38
Dediapada ...	17	—	—	—	—	17
Sagbara ...	64	—	—	2	—	66
District Total ...	1,633	10	29	43	4	1,719

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CONDIMENTS AND SPICES.
Marcha.

Marcha (chilly) is the only crop under this group worth receiving any mention. In 1955-56, 1,633 acres were under chillies of which 826 acres were in Hansot, 182 in Broach, 141 in Jhagadia and 128 in Jambusar talukas. Chillies are sown alone in clay loamy soils during the rainy season and the plant starts bearing fruits in about three months time. Fruit bearing continues for about three to five months.

Adu.

Adu (ginger) is grown on 10 acres of land and is grown in the talukas of Broach, Jambusar, Jhagadia and Nandod. *Halad* (turmeric) covered only 29 acres. *Lasan* (garlic) is grown in talukas of Broach, Ankleshwar, Jhagadia and Nandod and covered only 43 acres in the year 1955-56.

FIBRES.

Cotton is the chief fibre crop of the district and as such dominates its agricultural economy. As has been noted earlier in this chapter, there is a predominance of cash crops in the district and food crops occupy a smaller place; the balance has mainly been tilted in favour of cash crops by the extensive cultivation of cotton which is the largest of crops grown in the district. Fibres covered in the year 1955-56 an area of 5,64,905 acres i.e., about 51 percent of district's gross cropped area. Of this cotton alone accounted for 5,64,454 acres and the remaining 451 acres were under jute and Bombay hemp. The following table gives the area under fibres in Broach district :—

TABLE No. 20

Area in acres under fibres in each Taluka of Broach District in 1955-56.

Taluka	Cotton	Jute	Sann-Hemp (Bombay Hemp)	Total Fibres
Broach	77,048	—	—	77,048
Ankleshwar	49,168	9	4	49,181
Wagra	68,573	—	—	68,573
Amod	61,601	—	—	61,601
Hansot	32,983	—	—	32,983
Jambusar	98,688	6	—	98,694
Nandod	54,477	25	53	54,555
Jhagadia...	55,320	12	—	55,332
Valia	46,107	10	—	46,117
Dediapada	11,671	45	174	11,890
Sagbara	8,818	63	50	8,931
District Total	5,64,454	170	281	5,64,905

Kapas.

Kapas (cotton) is the most important and extensively grown crop of Broach district. This district has been known for its cotton cultivation since olden days. At the time of the compilation of the old Gazetteer, cotton occupied, as a single crop, the largest area in the district viz., 1,76,233 acres or 44.7% of the land under crops. The cultivation of cotton received impetus at the hands of the British administrators and cotton cultivation showed a steady

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increase during the British rule. Even to-day, cotton occupies the largest area in the district i.e. 5,64,454 acres or about 51 percent of the district's area under crops. The following figures show the acreage under cotton in Broach district during recent years :—

Acreage under Cotton in Broach District, 1930-31 to 1955-56.

Year.	Area under cotton in acres.
1.	2.
1930-31	2,84,421
1938-39	3,03,421
1940-41	3,16,487
1943-44	3,02,189
1945-46	1,18,027
1947-48	1,84,341
1948-49	1,76,012
1949-50	3,15,900
1950-51	4,13,700
1951-52	4,27,200
1952-53	4,09,400
1953-54	4,27,700
1954-55	4,82,500
1955-56	5,64,454 (Provisional)

The history of cotton cultivation, as revealed by the above statistics, provides some interesting facts which should be noted. The year 1930-31, which was a slump period for Indian agriculture, records an acreage of 2,84,421 under cotton which was higher by 1,08,188 acres than the cotton acreage for 1874-75. This shows that there has been a steady growth of cotton cultivation in Broach district since the compliation of the old Gazetteer. Cotton cultivation was on the increase even in the thirties of this century and the area under cotton in Broach district on the eve of the world war II (1938-39) stood at 3,03,421 acres. During the next few years cotton cultivation in the country received impetus because of the stopping of imports from America and Egypt on account of war, though it remained almost the same in Broach district. With the entry of Japan into the war arena, Indian cotton trade suffered a lot. The export markets in the U. K., the Continent and Japan were lost and cotton prices encountered a set-back at home; simultaneously, the country was faced with a serious food shortage. The Government of Bombay, therefore, enacted the Bombay Growth of Food Crops Act in 1944

with a view to diverting the area under non-food crops to food crps. As a result, the area under cotton, in Broach district, came down from 3,02,189 acres in 1943-44 to 1,18,027 acres in 1945-56, showed a slight increase in 1947-48 and once again came down to 1,76,012 acres in 1948-49. This decline in the area under cotton, though mainly due to the grow more food compaign launched by the State Government, was also due to the low prices of cotton and higher monetary return to growers of competing food grain crops and groundnut. In 1949-50, a sudden increase in the cotton area took place. There are two main reasons for the increase in the area under cotton during the period after 1949-50. In 1949, the princely State of Rajpipla was merged in the Broach district and vast cotton lands of old Rajpipla State were included in the cotton statistics. According to the statistics of 1949-50, the five merging talukas of Nandod, Jhagadia, Valia, Dediapada and Sagbara accounted for 98,355 acres under cotton; the remaining 2,17,504 acres were from the former district of Broach. In the same manner, the merging talukas accounted for 1,06,870 acres and 1,24,751 acres under cotton in 1950-51 and 1951-52 and the areas under cotton for the pre-merger portions of Broach district were 3,06,851 and 3,42,487 acres respectively. Thus we find that there has been considerable increase in the area under cotton in the old district of Broach and in fact, in 1955-56, was recorded the highest acreage during the period since 1930-31. It even crossed the pre-war acreage figure. Since the merger of princely States in 1949, there has been an increase in the cotton areas even in the five merged talukas of Nandod, Jhagadia, Valia, Dediapada and Sagbara.

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Acreage.

Cotton covered an area of 5,64,454 acres of land in 1955-56 i.e. 51 percent of gross cropped area of the district. It is grown extensively in all the talukas of the district. Of the total area, 1,76,393 acres were in the five subdivisions of Nandod, Jhagadia, Valia, Dediapada and Sagbara which were integrated in this district on account of the merger of Rajpipla State and 3,88,061 acres were in the six talukas of Amod, Hansot, Broach, Vagra, Ankleshwar and Jambusar comprising the old district of Broach. On the whole the talukas of Jambusar and Broach have the largest acreage among talukas of the district, and together account for 31 percent of the total area under cotton. Vagra taluka, with 68,573 acres under cotton, comes next and accounts for about 10 percent of the cotton area of the district. Amod, Jhagadia and Nandod each having more than 50,000 acres of land under cotton, follow Jambusar, Vagra and Broach. The other areas where cotton is grown on a larger acreage are talukas of Ankleshwar, Hansot and Valia; Dediapada and sagbara have relatively smaller acreage under cotton.

Preparatory Tillage.

Cotton is chiefly grown on good deep black soils of the district. The lands intended for cultivation of cotton are prepared by harrowing twice or thrice just before monsoon in May-June. Clods are broken by a heavy *samar* (plank) and lands are levelled. Ploughing

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is usually not done at the time of sowing but is done once in October as a last inter-culturing. The cotton seed is drilled, either at the end of May in dry mulch or after the first shower of rains in early June, distance between the two rows being 5 feet. Sowing is done with the help of two-coultered seed drills. This system of pre-monsoon sowing has certain distinct advantages. In the initial stages, if it rains heavily, the soils are not accessible and it is very difficult to sow large areas in short sowing time available when *warap* comes up. Germination also is quick. It is also easy to inter-culture the advance crop of cotton during the *warap* period. After one and a half month of sowing, thinning is done, leaving a distance of 1½ to 2 feet between plants in the rows which are five feet apart. Weeds are taken out and interculturing follows to keep up the mulch and at times, ploughing is also resorted to if there is more moisture in the soil. If the moisture is less, a good mulch is prepared by blade harrow to preserve the moisture. Due to the paucity of farm yard manure, cotton lands are usually not heavily manured. Cultivators apply farm yard manure, wherever available, at the rate of five cart-loads per acre. Cotton crop is generally ready in the month of January where seed cotton is picked from the bolls. Picking is usually done in the early morning to avoid the sticking of leafy matter to seed cotton thereby spoiling its quality. Picking continues till March April; usually 4 to 5 pickings are done. The seed cotton thus collected is stored on the fields and is sold before monsoon sets in.

Cotton in this district is usually an entire crop, but at some places inferior kinds of rice are also grown along with it. This combination has been reported from almost all the talukas of the district. Sometimes kharif sesamum, kharif castor, kodra, tur, udid and chavli are also grown along with cotton. Several systems of rotation are followed in this district. Cotton where sown along with paddy, is rotated with jowar, bajri or groundnut in two-year rotation and with jowar and lang in a three-year rotation. When sown alone, it is followed by jowar, wheat, lang, or groundnut in a two-year rotation and by jowar-groundnut, paddy-lang, lang-wheat, jowar-lang, cotton-wheat or wheat-jowar in a three-year rotation. Rotation systems in this district are good ones as they maintain the fertility of the soil. Cotton taken after leguminous crops keeps the field clear and yields better.

In Broach district, the yield of cotton per acre varies from season to season and even from field to field. However, it has been estimated that a quantity of about 400 to 450 lbs. of seed cotton is the normal yield of cotton per acre in this district. In the year 1955-56, the outturn of cotton crop has been estimated at 2,69,492 bales (of 392 lbs. each).

The cotton crop in this district suffers from two main diseases, namely, cotton wilt and cotton root rot; it is also susceptible to attacks from four types of pests, namely, cotton boll worms, jassids,

aphids and thrips. The nature and extent of damage and preventive measures for these pests and diseases are described in detail in the section relating to pests and diseases on page 273.

The varieties of cotton grown in Broach district are mainly located in two distinct zones. These zones are separated by the river Narmada. The north zone grows *Vijay* cotton and the south zone (south of Narmada) grows *Surati* cotton.

Attempts towards Improvement in Cotton varieties.

The history of cotton development in Broach is interesting. The following few pages give a narrative of attempts made towards cotton development in Broach district during the last 140 years.

The attempts on the part of Government to improve Broach cotton have been of two distinct kinds. Government has tried to add to the value of cotton by improving the process of tillage and it has tried, by preventing adulteration, to secure that the cotton should realize its proper price. Though raw cotton was sent to England from India as far back as 1783, it was not till the rupture between England and America in 1803 that India became important to Europe as a producer of that raw material. American cotton imported into England was of superior quality and efforts now began to be made to encourage the cultivation of better quality cotton in India so that the British industrialist might not have to depend upon America for obtaining the raw material which he urgently required for his mills. In 1811 a supply of Bourbon quality seed was sent from England to Bombay and in the next year (1812) a second consignment was forwarded. This Bourbon seed was distributed to the Collectors of Broach and Surat, with instructions to sow a portion of it on account of the honourable Company and hand over the rest to cultivators likely to give the seed fair trial. But before the closer of 1812, American trade with England was renewed, and 'Indian cotton remained a ruinous and unproductive burden both upon the Company and the private importers.' The sowing of Bourbon seed in 1812 would seem to have failed and no further steps to improve the system of cotton tillage appear to have been taken for several years.

The efforts that Government made subsequently extend over three periods. The first series of attempts lasted for seven years, from 1829 to 1836; the second nine years, from 1840 to 1849; and the third began in 1868. The objects of these experiments were three-fold : to promote the growth of foreign varieties of cotton; to improve the mode of growing and picking native cotton; and to introduce new machinery for separating cotton from its seed. It would be interesting to see how far each of these objects was attained.

1829-1836

The first set of experiments was begun in 1829 by starting a cotton plantation in Broach. Mr. Finney, a gentleman chosen for

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his knowledge and experience in indigo planting was placed in charge of this farm. Mr. Finney did not reach Broach in time to grow any cotton in 1829. Some of the ordinary local variety was carefully but expensively cleaned, and though in England it fetched 6¼d. a pound when the best Broach was sold at 5¼d. a pound, the consignment was sold at a loss. Before he had been at Broach for a year Mr. Finney died and was succeeded by Mr. Martin. This gentleman, for the season of 1931-32 took a farm of 1,500 acres at Danda in the Amod sub-division. He induced cultivators to till a part of this land by contract in the hope that they would adopt in their own fields any improvements they might notice on the land of the farm. The result disappointed the superintendent. He found that in spite of greater care and heavier cost his crop was no better than the crops of his neighbours. He thought that the existing method of cultivation could not be improved upon. "The implements used," he wrote ,"are well adapted to the purpose, and each peasant, on account of having but a small plot of land to look after, can give it more care and attention than any hired servant would be likely to pay". At the same time, Mr. Martin was of opinion that much good might be done by paying more attention to clean picking. And during the succeeding season (1832-33) he was allowed, at his own request, to let out 1,400 acres of his farm and take the rent in the finest uncleaned cotton. This cotton he was to clean of seed by using the saw-gin. He was authorized to experiment with foreign seed on the remaining 100 acres of the farm, and to purchase and clean with saw-gins £ 1,000 (Rs. 10,000) worth of the best local cotton. To carry out these plans warehouses were built and small advances granted to the cultivators for current expenses. So far (1832) the attempt to grow exotic varieties had failed. The plants that came up were destroyed by an insect and the cultivators would not sow the American seed offered to them. The establishment was reduced and the Superintendent wrote (1832) : "All our attempts to grow exotic cotton only proved that foreign varieties will grow but not that they will afford a reasonable profit to the cultivator". "The whole," adds Mr. Cassels, "had been mere costly garden experiments producing small results at large expenses". There was also a gradual deterioration in the quality of the foreign cotton grown in each successive year. As the other objects for which the farm was established had equally failed, it was decided in 1836 to maintain it no longer. Though the farm was closed, some attempt was made to improve the modes of cleaning and packing the cotton. A large house and garden, the Amjad Bag near Broach, was in 1834 granted rent-free to Merwanji Hormasji, 'who had served for several years with distinguished credit as native agent for the provision of the company's China and British cotton investments'. Mr. Merwanji was engaged to established screws and warehouses for packing and storing cotton, and is said to have to some extent, secured greater care in the operations of picking and cleaning. This was, however,

* In those days the exchange value of a £ was Rs. 10 in Indian currency. Calculated at that rate 1. d. was equal to 2/3 of an anna.

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a hard task as at that time the state of the market was such that dirty cotton, relatively to the cost of producing it, gave a better return than clean. Before five years were over Mr. Merwanji would seem to have abandoned his attempts. One or two other measures were about this time taken with a view to helping the Broach cotton trade. The cess on Indian cleaners' charka was removed in 1836, and in 1839 government ordered local authorities to take steps for putting a stop to the cotton pit system of storage. It appears, however, that it was not found possible to carry out the wishes of government in this matter. The first series of attempts to improve the position of Broach cotton would, therefore, seem to have ended in failure.

1840-1849.

Two years later, in 1838, 'the periodical cry' from public commercial bodies was again raised that some further steps should be taken to improve cotton culture in India. Accordingly, in spite of the result of the first experiments the Court of Directors in 1839 made arrangements to engage the services of twelve American planters to come to India to show the Indians an improved way of growing and cleaning cotton. Three of these gentlemen arrived in Bombay in September 1840 and went to Broach. Here the planters were placed under the superintendence of Dr. Peart, and the Amjad Bag, the building granted in 1834 to Mr. Merwanji Hormasji, was hired as a factory. The objects of these experiments were the same as those proposed in 1829 : but as the planters did not arrive till september, the first year of cultivation passed without anything being done in the way of growing foreign varieties. When the crops were ripe and picking was begun, the planters found that the Indian farmer had nothing to learn from them in the matter of picking and that the stimulus of a small additional price was all that was required to make them produce well-cleaned seed-cotton. Towards the third object of the experiment, the introduction of the saw-gin, in the first season (1841) nothing could be done as the machinery had not arrived from England. Before the next rains (1841) 175 acres of land approved by the planters were secured. Of the whole area, 125 acres were of light soil in the villages of Aldharwa and Asuria, and fifty acres of the best and most productive black soil at Kukarwara, about four miles west of the town of Broach. The planters tried to plough before the rain fell, but failed. They then took to the Indian way of cleaning and preparing the land. Almost the whole of the fields were sown with New Orleans seed. The plants vegetated well : but when the first rain ceased they were blighted both in light and black soils, though alongside the local cotton was unhurt. An irrigated plot of Sea Island cotton looked well for a time, but before harvest it was destroyed by insects. The local cotton was grown in American fashion on high and broad ridges thrown up by the plough. The outturn was not, however, superior to cotton grown in the ordinary Broach way. At the end of 1841 the three American planters left Broach. The place of those who had left was in 1842 supplied by one of the band of planters, Mr. Hawley who, originally appointed to Madras, volunteered to come to Broach. Mr. Hawley

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was put in charge of the experimental farm at Broach under Dr. Burn who had by this time succeeded Dr. Peart as superintendent of experiments in Gujarat. On his arrival Mr. Hawley was reported to have been much struck by the Indian drill husbandry of Broach. The saw-gins at last (1842) arrived, and seventy-one bales of cotton were ginned. The first work of the saw-gins would seem to have been on the whole favourable. Dr. Burn thought the cotton cleaner than if it had passed through the ordinary machine. And in England the verdict of the spinners was that though much cut in ginning the improvement in cleanness more than made up for the injury to the staple.

In this season (1842-43) another attempt was made to rear exotic cotton. Five plots of land in different parts of the district aggregating about forty acres were sown with New Orleans, Sea Island, and Bourbon seed. There is no detailed statement of the result of these experiments; but they were not very successful as the produce only amounted to 457 pounds, or 11¼ pounds per acre. Disappointing as this outturn must have been, it was a less complete failure than the results of the next season (1843-44) when, except the Bourbon which produced one bale, the foreign varieties appear to have entirely failed. It was by this time again admitted that the climate and soil of Broach were not suited to the growth of American cotton. So in the next year (1844-45) Mr. Hawley devoted himself to trying to improve the Indian way of growing their own cotton. In this, again, he was disappointed. At the end of the season, he wrote, "the crops now standing in the Kukarwara farm will not be better in any respect than some of the cotton on the fields near, which has not cost half the labour". In 1845-46, eighty-five acres were cultivated with Indian cotton, but only yielded at the rate of forty-two pounds of cleaned cotton per acre (70¼ pounds kapas per bigha). This sold at from 4¾ d. to 5⅓ d. a pound, but left a loss. In the same year (1845) the land at Karod was given up and in the following season (1846) Dr. Burn, disappointed with the results of his experiments, resigned his appointment.

In the January following (1847), Mr. Mercer, one of the American planters, who had introduced hand saw-gins in the Southern Maratha Country, was put in charge of the experiments at Broach. Under Mr. Mercer's advice the farm at Kukarwara was given up and the efforts of the superintendent limited to overcoming the cultivator's objections to the introduction of saw-gins. Shortly after this, Mr. Mercer left the country and was succeeded by a Mr. Simpson from Khandesh. But Mr. Simpson's attempts to bring the saw-gin into favour would seem also to have failed. During the next year (1848) the gins appear to have been idle, and an offer to take over the machinery made by Mr. Landon, 'a gentleman well acquainted with the cotton cultivation of the southern states of America, was accepted. Mr. Landon was allowed the use of the hand gins; but his efforts were no more successful than those made before, chiefly because the hand gins required harder work than the Indian cleaner.

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"No native of the district" wrote Mr. Landon in 1849, "has shown the slightest wish to own a gin; they are lying idle and unnoticed, useless and unprofitable". In the year 1849 one more attempt was made by Mr. Landon to introduce Georgian and New Orleans seeds acclimatized in Dharwar. The fields looked well at first, but the rains were very heavy, and though the Indian plant picked up afterwards and yielded a good crop, the foreign variety failed. One patch of New Orleans grown in one-fourth of an acre of garden land, a small favoured spot, yielded thirty-three pounds of clean cotton.

Unsuccessful on all sides, government thought 'it would be a waste of public money any longer to continue the expensive experiments'. The establishment accordingly was broken up and free use of the machinery was granted to Mr. Landon. Mr. Cassels thus sums up the results of the second series of experiments: "Some kinds of exotic cotton, such as New Orleans and Bourbon, yielded occasionally a small crop when cultivated as garden plants with great care and at great expense, but they never escaped partial damage from the effects of the season. When the same kinds were cultivated on a larger scale, the crop invariably failed. That it is possible to raise garden samples is not doubted, but that foreign kinds can be raised at prices that will repay the cultivator has not been shown. It was proved that with more care and attention and more than twice the expenses of the native cultivation, a larger yield and better and cleaner quality might be obtained from the indigenous cotton than the cultivators can produce, but not sufficiently so to repay the additional outlay. And finally ,that the native cotton, when cleaned by the American saw-gin, was generally injured in its staple".

1868.

Though, for the next nineteen years, there was no systematic attempt on the part of government to improve Broach cotton, experiments in the growth of foreign varieties were from time to time undertaken by local officers. After the regular operations came to an end in 1849, small sowings of New Orleans cotton were continued for two or three years. These ended in 1852-53 when five acres were sown without apparently any return. In 1858 some packets of New Orleans seed were presented to the Collector of Broach by a Parsi merchant. With some difficulty cultivators were persuaded to sow this seed. No plants however, came up and two years later, with this failure fresh in their minds, the Collector could not find any cultivators willing to sow New Orleans cotton seed received from the Manchester cotton-supply association. The appointment, under the Cotton Frauds Act (No. IX of 1863), of officials specially interested in the state of cotton naturally led to fresh attempts once again to naturalize foreign varieties of the staple. In 1866-67 a few experiments were tried on a limited scale and in the following year (1867-68) Egyptian cotton was grown with some success. Mr. Hope, then Collector of Surat, obtained sanction for the expenditure of £ 1,000 (Rs. 10,000) on the culture of foreign cotton, and a special officer,

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Mr. Carrel, an inspector in the Cotton Frauds department, was appointed to supervise the experiments. The season proved unfavourable, and the attempts would seem to have failed. In the same year, 1868, Dr. Forbes, then Cotton Commissioner, in a letter to Government stated that those experiments had in his opinion failed, because the work of cultivating had been attempted by persons without the necessary practical knowledge of agriculture. He suggested, therefore, that government should obtain skilled gardeners who had received a scientific training in England. Government in 1868 approved of this proposal and arrangements were made for engaging skilled gardeners from England. Mr. Shearer, the superintendent of experiments in Dharwar, was sent to Broach and about eighteen acres of land was taken up in different parts of the district. This land was rented from the occupants who were engaged on their fields under the direction of the superintendent. In July, 1868 Mr. Stormont arrived from England and came to Broach to take Mr. Shearer's place. The attempts to grow foreign varieties did not, however, succeed. "They proved beyond question," wrote Mr. Stormont, "that exotic cotton is not suited for cultivation in Broach".

In the following year (1870-71) only a trifling quantity of foreign seed was sown, enough to yield a few flowers for the purpose of hybridization. The operations of this season were chiefly confined to improved cultivation and selection of native varieties of seed. The result was so successful that the cultivators 'bought up every pound of spare seed, and sowed it in their own fields.' In the monsoon of 1871 thirty acres were put under cotton near Broach. Three kinds of manure were experimented with but, except in the case of town-sweepings which are said to have made the cotton plants run too much to wood, with no immediate result. In 1872 some fields were again taken up and sown with selected indigenous seed. Small patches of exotic varieties were also grown for botancial purposes. One-sixth of an acre devoted to Georgian seed did well, yielding at the rate of 120 pounds of clean cotton per acre. Of the fields sown with seed of Indian varieties, one fertilized with nitrate of soda and sown on the ridge system, yielded over 200 pounds of clean cotton. The cost of cultivation was, however, very heavy, weeding alone coming to £ 1 3 s. (Rs. 11-8-0) per acre. Since 1873, no further experiments were made in respect of growing foreign cotton in Broach.

So far it would seem that, of the three objects for which experiments were undertaken, the first two the introduction of foreign seed and the improvement of the Indian system of growing and picking cotton have failed. With regard to the introduction of foreign seed, the experiments would seem to have shown that except for purposes of hybridization there was little chance that future efforts to cultivate foreign varieties would succeed in Broach. The last experiments would seem to bear out Dr. Royle's opinion that the cause of failure was the great heat, accompanied by draught, that succeeds

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the moisture of the rainy season. The improvements attempted in the culture of the Indian cotton were of two kinds, better tillage and more careful picking. As to tillage, though the planters soon gave up using their own implements and peculiar modes of cultivation, it was admitted that the land in Kukarwara, ploughed and ridged by them after the American fashion, for many years after the planters gave it up, yielded better crops than it had done under the ordinary Indian cultivation. As to the picking of the cotton, there would seem to have been from the first but little to teach the Broach cultivators who, when clean cotton had been at a premium, had always been able to offer the staple carefully picked and well cleaned. In the matter of ginning, on the other hand, a complete change had taken place. The saw-gins that succeeded so well in Dharwar, proved a failure in Broach; but a gin, known as the Platt Macarthy roller-gin, introduced in 1864, had during the past ten years entirely supplanted the old native 'cleaner'.

It was in 1918 that the Government of India appointed an Indian Cotton Committee with J. Mackenna, Esqr., C. I. E., I. C. S., Agricultural Adviser to the Government of India, as President to examine the work that had been done in the various provinces of India and to suggest ways and means of improving the then existing methods of ginning and marketing and of preventing adulteration and damping. The Committee found that the whole "Broach" cotton zone should be divided into different tracts. The first of these should comprise Broach district north of the Narmada and adjacent parts of Baroda with some areas of Saurashtra. The second tract should include the Southern part of Broach district i.e., South of Narmada as well as Surat district. Thus it will be seen that as early as in 1918 Broach district was definitely divided into two cotton tracts. The Committee also found the slow but sure spread of the inferior variety of gossypium herbaceum known as Ghoghari which was then existing in Amod and Jambusar talukas of the Broach district. The high ginning percentage of this Ghoghari variety induced merchants to give better rate and this brought the variety into much favour with the cultivators and its extension throughout the Broach deshi tract had proceeded with extreme rapidity. This was the main cause of the fall in the reputation of all Broach cotton in early 20th century. This Committee therefore recommended that immediate steps be taken to check the spread of this high ginning, short stapled Ghoghari cotton.

After isolating pure strains of Ghoghari and Broach Deshi varieties, the Bombay Department of Agriculture undertook the crossing of suitable pure types in 1920. Research work was concentrated on isolating and selecting strains having high yield of seed cotton, high resistance to cotton wilt and better staple qualities. A detailed study of the first generation and later generation of various crosses of these two types revealed many points of genetic interest. After steady and careful research in cotton hybridization carried out at

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Surat and Broach for evolving better cotton strains for Broach tracts in 1935 B. D. 8 (Broach Deshi No. 8) with 34 ginning percentage, 0.90" staple length, 0.179" mean fibre weight per inch (millionth of an ounce) and 38th Highest standard Warp Counts was evolved. The Bombay Agricultural Department had made systematic efforts for multiplication and distribution of B. D. 8 cotton from 1935 to 1943 in the Broach tract. The trade was satisfied with the quality of this strain but the low ginning percentage of 34 for this variety against the high ginning percentage of about 45 for Ghoghari variety was a danger spot for any indiscriminate mixture of these varieties, thus marring the reputation of Broach cotton quality. It was then attempted to evolve a type with high ginning percentage, that would be on par with Broach local, keeping the other fibre qualities intact as far as possible. Various efforts were made to evolve strains by hybridization with a view to combining high yielding capacity, wilt resistance, high ginning and superior staple qualities. The successful strain popularly known as Vijay was synthetically evolved by hybridization by crossing B. D. 8 cotton with Ghoghari A. 26 cotton and back crossed again to B. D 8. This has got 41.2 ginning percentage, 0.87 mean fibre length, 0.167 mean fibre weight per inch (millionth of an ounce) and 38 highest standard warp counts. Vijay cotton, a composite mixture of B C. 1-2 and B. C. 1-6 in 50:50 proportion, was under distribution from 1943 to 1947 in the whole of Middle Gujarat between the rivers Narmada and Sabarmati. This strain has replaced all other existing Broach local varieties including Ghoghari and by the introduction of Cotton Control Act, Vijay is grown not only in the north of Narmada in Broach district but in other districts also namely, Baroda, Kaira Panchmahals and Sabarkantha. The Broach cotton tract has about a million acres under cotton. Vijay has brought back the reputation of Broach cotton and it is appreciated by the cultivators as well as by the trade.

As to the southern part of the Broach district i.e., South of Narmada which is different from the part north of Narmada, strains which are evolved on Surat Farm, suitable for Surat zone, are grown. The evolution of types suitable for this zone has also a history. It was again in the early part of the 20th century that the reputation of Surat cotton was in danger because of the steady and sure progress in the spread of inferior Ghoghari variety. In addition to this there was one strain called selection 1A with 39 as ginning percentage and 0.86" as staple length which was appreciated by a part of the Surat district. But then 1027-A. L. F. a far superior strain with 35.6 as ginning percentage 0.95" as staple length was much appreciated by the trade and this variety was grown throughout the Surat district including part of the Broach district south of Narmada. Attempts were continued to build up a type superior to 1027-A A.L.F. in ginning which, it was complained, was inadequate in that type.

During recent years the *Suyog* variety has been evolved. This has 38 ginning percentage, and 0.96" staple length. From 1952-53

onwards another better strain, namely, 2087 (*vijalpa*) has been introduced in Surat District and in parts of Broach district south of Narmada. This has 36 ginning percentage and 0.96" staple length and gives a yield of 40 lbs., per acre more than *Suyog*. As a result, it has attracted attention of the cultivators and the cotton trade. The introduction of this seed is a part of the Scheme of Agriculture Department for the multiplication and distribution of 2087 cotton seed in Surat cotton tract. The scheme was financed on the basis of progressive self-sufficiency for three years upto 1955-56. From 1956-57 the scheme has been made entirely self-sufficient financially; revenues are collected by way of supervision charges of Rs. 1-8-0 per Agmarked bale and Re. 1 per certified bale of 2087 cotton.

Statement showing the economic characters of the Suyog and 2087 (vijalpa) cotton types.

Type	Yield of cotton seed per acre.	Out-turn of lint per acre.	Ginning percentage.	Staple length in inches.	Fibre weight 6 to 10 oz.	Spinning value H.S.W.C.
Suyog	349	131	36.7	0.96"	0.194	33's *
2087	387	147	37.3	0.98"	0.170	35's @

The attempts to evolve a better variety of cotton which will possess as many good qualities (namely fineness, feel, staple length, spinning value, early yield and resistance to disease and pests) as possible still continue. With this object in view, crosses of Vijay and the Surat Improved strain 1027 A. L. F. were made in the early 40's. From these crosses several promising segregates were isolated and, by 1952-53, the promising material on hand consisted of 3 main strains viz., 66-60, 98-24 and 98-41. The latter two came from the back-cross (Vijay X 1027 A. L. F.) X Vijay. All these were tried extensively in the district from 1947-48 onwards and 98-41 was found to be most suitable and promising one to replace Vijay. The comparative performance of Vijay and 98-41 is given in the table below :—

TABLE 21

Performance‡ of Vijay and 98-41 in Middle Gujarat from 1947-48 to 1952-53.

Type	Yield of kapas per acre in lbs.	Yield of lint per acre in lbs.	Ginning percentage.	Fibre length inches	Fibre weight —6 10 oz	Spinning value High speed warp counts.	Cash value per acre.
							Rs.
Vijay	481	192	39.3	0.89	0.166	39's	236
Digvijay (98-41)	503	199	39.0	0.91	0.154	42's	253

* susceptible to wilt desease.
@ resistant to wilt disease.
The figures are the average of 23 in different seasons at different places.

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The improved strain 98-41 matures earlier than Vijay by 10 days and is also highly wilt resistant. It was found to give the grower an extra income of Rs. 10 to 12 per acre as a result of its 5 per cent increase in yield of kapas and finer fibre quality. It was released for general cultivation in 1955 with the approval of the Indian Central Cotton Committee, Bombay, under the popular name of Digvijay. In the year 1956-57, this strain covered an area of 1,75,560 acres.

At present attempts are being made to improve Digvijay further in regard to its length and early yield. The promising material on hand consists of the crosses of E. 22×1802 and some of the cultures give fibre length of an inch and over. New crosses are also made for earliness involving promising types from Surat, Dharwar and Madras.

FRUITS AND VEGETABLES.

Fruits and vegetables covered only 4,618 acres of land in Broach district in 1955-56. There is not much of garden cultivation in this district, as the neighbouring district of Surat is quite famous for the cultivation of fruits and vegetables and the requirements of Broach district are met by large imports of fruits and vegetables from Surat. The following tables give an idea of the area under fruits and vegetables in Broach district :—

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Agriculture.
FRUITS AND VEGETABLES

TABLE No. 22

Area in acres under Vegetables in each Taluka of Broach District in 1955-56

Taluka	Sweet Potato	Onion	Suran (elephant foot)	Carrot	Radish	Cab-bage	Brinjal	Fenu-greek	Bhendi (Lady's finger)	Musk Melon (Khar-buji)	Other Vegetables	Total Vegetables
Broach ...	1	53	1	9	2	11	236	2	70	23	895	1,303
Ankleshwar ...	3	55	13	2	3	6	60	—	193	4	76	415
Wagra ...	1	2	—	—	1	—	33	—	4	—	19	60
Amod ...	1	9	—	—	—	—	57	—	13	—	92	172
Hansot ...	—	—	—	—	—	—	79	—	1	—	5	85
Jambusar ...	3	3	—	—	1	59	—	—	23	16	19	124
Nandod ...	1	9	1	—	—	9	201	—	127	—	47	395
Jhagadia ...	—	35	8	—	—	—	55	—	67	—	24	189
Valia ...	—	14	—	—	—	—	50	—	59	—	31	154
Dediapada ...	—	20	—	—	—	—	12	—	11	—	30	73
Sagbara ...	—	8	—	—	—	—	21	—	3	—	—	32
District Total ...	10	208	23	11	7	26	863	2	571	43	1,238	3,002

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TABLE No. 23

Area in acres under Fresh Fruits in each Taluka of Broach District in 1955-56.

Taluka	Banana	Mango	Lime	Sweet Lime	Pomelo	Guava	Papaya	Other Fresh Fruits	Total Fresh Fruits
Broach	23	81	9	1	1	130	31	50	326
Ankleshwar	6	455	—	—	12	344	31	—	848
Wagra	—	3	—	—	—	1	—	—	4
Amod	2	16	—	—	—	—	1	—	19
Hansot	—	—	—	—	—	—	—	—	—
Jambusar	—	20	1	—	—	—	7	—	28
Nandod	86	22	—	—	—	3	7	—	118
Jhagadia	34	134	15	—	—	12	12	—	207
Valia	29	17	—	—	—	—	—	—	46
Dediapada	—	2	—	—	—	—	—	—	2
Sagbara	—	10	—	—	—	—	—	—	10
District Total	180	760	25	1	13	490	89	50	1,608

In Broach district, 3002 acres were under vegetables and 1,608 acres under fruit trees. Large areas under vegetables are found in talukas of Broach, Ankleshwar, Nandod, and Jhagadia. The chief among the green vegetables grown in the district are *dudhi* (bottle gourd), karela (bitter gourd), and ringan (brinjals). Root vegetables covered relatively small area and their cultivation was concentrated in the talukas of Broach, Nandod, and Jhagadia. *Suran* (elephant foot) and *dungli* (onions) are the chief root vegetables of the district. Green fodder i.e., green grass was grown only in Dediapada taluka. Fruit trees are to be found all over the district except the Sagbara mahal and Dediapada taluka. Ambo (mango), Jamrukh (guava), chickoo, and papaiyas are the chief fruits grown in the district.

FODDER.

Fodder crops account for 99,072 acres in this district i.e., about 9 per cent. of the district's gross cropped area. The chief fodder crops of the district are jowar, jowarbatu and jowar sundhia. The following table gives an idea of area under fodder crops.

TABLE No. 24

Area in Acres under Fodder Crops in each Taluka of Broach District in 1955-56.

Taluka	Hot Weather Jowar	Guinea-Grass	Oat.	Jowar	Others	Total Fodder Crops
Broach ...	43	7,550	10	2,215	60	9,878
Ankleshwar ...	1	7,668	25	266	38	7,998
Wagra ...	34	2,632	3	2,487	11	5,167
Amod ...	229	4,541	—	2,287	47	7,104
Hansot ...	—	6,220	4	—	32	6,256
Jambusar ...	3,710	3,145	—	1,391	441	8,687
Nandod ...	32	9,653	—	860	114	10,659
Jhagadia ...	241	19,005	5	912	223	20,386
Valia ...	47	13,771	—	271	14	14,103
Dediapada ...	6	8,436	—	35	6	8,483
Sagbara ...	10	333	—	8	—	351
District Total	4,353	82,954	47	10,732	986	99,072

FODDER.

Of the total area of 99,072 acres under fodder crops, Jhagadia taluka accounts for the largest area i.e., 20,386 acres and is followed by Valia mahal with 14,103 acres, Nandod with 10,659 acres, and Broach with 9,878 acres. Jambusar grows *Sundhia* jowar to a large extent. Jowar and Jowarbatu fodder is grown in almost all the talukas of the district; the taluka of Wagra is an important producer.

AGRICULTURAL OPERATIONS.

Agricultural operations vary according to crops, rainfall and the soil of the tract. These operations consist of opening of the land by digging or ploughing; further pulverising the soil; cleaning the field; spreading the manure and mixing it with the soil; sowing the seed or planting the sets or seedlings; interculturing, weeding; earthing up; irrigating; applying quick-acting manures as top dressings; spraying or dusting of insecticides; watching to protect the crops from birds, stray cattle and wild animals; harvesting; threshing and preparing the crops for the market; and storing. In addition to these, occasional operations for permanent improvement of the soil, such as bunding, levelling, trenching, draining, the excess water from the soil and reclaiming lands for cultivation, are also undertaken by the cultivators. Some of the important operations prevalent in the district are described in the following paragraphs.

Ploughing.

Ploughing (*khed*), which is done by wooden or iron ploughs to open the land, to dig out deep rooted weeds or stubles, to aerate the soil and to trap and store water for crops, is not usually done on all lands in Broach district. Usually black soil lands are harrowed before the starting of the season and medium and lighter soils are harrowed and ploughed. Cotton lands are not ploughed and are harrowed twice or thrice during May-June; and ploughing is done only once in October as interculturing. Lands intended for the cultivation of kharif jowar, rabi jowar, paddy and groundnuts are harrowed two or three times during the months of May-June. Rabi jowar land is again harrowed twice or thrice in August-September. For harrowing local country harrows are used. Lands intended for bajri, kodra, til and tur are ploughed twice or thrice with the help of light ploughs during May. Lands under rabi crops such as wheat, land and gram are also ploughed once or twice during August-September with the help of light plough. Such lands are afterwards harrowed twice or thrice with the help of country harrows.

Manuring

The farmer takes out the well rotton farmyard manure or compost from pits by means of spade and baskets and carts the same to his field. This manure is spread over the field and then mixed with the soil with the help of a harrow. The usual practice in this district is to apply 5 cart loads of farmyard manure per acre to the lands intended for dry crops and 10 cart loads to irrigated crops with the top-dressings of cakes and fertilizers in July-August depending upon the condition of rains.

Sowing.

In the case of many crops, seeds are sown for starting the crop, but in some in which seeds cannot be produced easily, parts of the plants

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are planted either after irrigation or after rains. In the case of paddy, for instance, as the seed is very small and the young plant requires special care, seedings are first raised in a specially raised seed bed and then transplanted. Seeds are sown either by broad-casting or by a drill in lines. Sometimes where the land is moist enough for seed germination, the seeds may be dibbled into the soil by hand. The seed drills are of two types, having two or three coulters. The seed after drilling is often covered by running a light plank or light harrow over the land. The quantity of seed required per acre would vary from a few ounces to a hundred pounds according to its size and weight and the optimum number of plants per acre to get the best crop.

Sowing operations in Broach coincide roughly with the outbreak of the monsoon. The kharif crops of paddy and cotton are sown in May-June before the first showers of monsoon while others such as bajri, til, groundnuts etc., are sown after first showers. Rabi crops are sown during August-September and lang and wheat are sown in November-December. The following statement shows the sowing periods of the important crops in the district :—

Months.		*Crops sown during the months.*
1. January	...	X X X
2. February	...	X X X
3. March	...	X X X
4. April	..	X X X
5. May	..	Cotton
6. June	...	Cotton, paddy, kodra, tur, til, groundnuts.
7. July	.	Kharif jowar, kodra. tur, til, groundnuts.
8. August		Kharif Jowar, Bajri, tur, til.
9. September	...	Rabi jowar
10. October	...	Wheat, lang, gram, Rabi Jowar
11. November	...	Wheat
12. December	...	X X X

Interculturing.

Interculturing means culturing or tilling or stirring the soil in between the lines of a crop. This is done by an implement called hoe. Interculturing is done to remove the weeds that take away large quantities of moisture and plant food, to aerate the soil, to prepare a mulch (a loose layer of dry soil as covering), to conserve soil moisture useful for the crop to prune the roots so as to encourage a deep root system and to kill the harmful insects hibernating in the soil. Genetally cotton lands are intercultured five or six

times with the help of a harrow. Jowar lands are also intercultured five or six times but with the help of hoes, while other crops are given three to five intercultarings during their life period with the help of hoes. Generally two or three hoes are worked by a pair of bullocks and each hoe is handled by one man. This team can interculture from three to five acres a day depending upon the distance between rows and also the depth of interculturings.

Thinning.

Thinning is done by removing small plants from the rows in order to maintain uniform distances between the rows and plants and also to maintain uniform strength to each plant. This operation is done in the fields in which cotton, bajri and jowar are grown, after the crops are firmly established.

Weeding.

The weeds that are in line with the crop escape the hoes and thus are required to be removed by hand with the help of weeding hook (Khurpi). Six or eight women labourers are required to weed an acre, depending on the kind and extent of weed growth. It has been reported that this operation is done only in the kharif crops. Two or three weedings are generally done during August and September for most of the crops.

Harvesting.

One of the most important agricultural operations, next only to ploughing and sowing, is the reaping or harvesting of the standing crops. The process is commonly known as *Kapani*. The crops are harvested only when they are fully ripe. The period of ripening varies from crop to crop. The following statement gives the harvesting time of some of the important crops :—

Months.		*Crops which are harvested during the month.*
1. January	...	Cotton, kharif jowar, Tur, Lang, Gram
2. February	...	Cotton, tur, Rabi Jowar, Lang, Gram
3. March	...	Cotton, Wheat, tur, sesamum
4. April	...	Tur, Sesamum
5. May	...	X X X
6. June	...	X X X
7. July	...	X X X
8. August	...	X X X
9. September	..	X X X
10. October	...	Bajri, Kodra, Til, Paddy.
11. November	...	Kodra, Tur.
12. December	...	Kh. Jowar.

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Food grain crops such as wheat, lang, gram, paddy, bajri and tur are harvested by uprooting or cutting the plants close to the ground by a sickle. Earheads of jowar are nipped from the standing plants which are later on cut by sickle. The cut plants are then put into swaths and the earheads are removed by cutting or breaking and carted to the threshing yard. The stems or stalks are dried, bundled and stocked as fodder.

Pulses are mostly cut as whole plants and are removed to the threshing floor. Vegetables are picked by hand and leafy ones are uprooted. Rootcrops like potatoes, sweet potatoes, ginger and turmeric are harvested by digging with spade. Groundnuts are also reaped in the same manner.

Cotton is picked by hand. When the crop is ready in January, picking is done by extracting seed cotton from the bolls. Picking is usually done in the early morning in order to avoid the sticking of leafy matter to seed cotton, thereby spoiling its quality. Picking usually continues till March and the crop is picked in five to six pickings.

Threshing and Preparing for Market.

Grain crops such as jowar, wheat, bajri, gram, lang and other cereals and pulses are trampled under bullock's feet till the material is broken into chaff. The grain is separated from the chaff by winnowing against breeze. Some of the root vegetables are dug out, cleaned well by rubbing out the soil after drying or washing and sold in the market.

Storing.

Grains are stored either for purposes of seed or for consumption at a later date. When they are meant for the purpose of seed, the quantity is usually small, especially when an individual farmer preserves his own seed. On the other hand, when it is meant for future use, the quantity stored is considerably large. Storage methods vary according to the use of the grain.

The seed is preserved in cylindrical bins called *palas* made of bamboos, tur or cotton stalk and well-plastered on all sides with cowdung and mud. This method is effective in keeping off the insects that might attack from outside. But many seeds, especially pulses, have small insects or eggs on them before they are stored. To prevent this trouble dry leaves of *nim*, castor oil and mercury are mixed with seeds.

In case the grains are required for future consumption, they are stored in underground pits or in cellars in residential buildings. Before storing, however, the grain is thoroughly dried.

IMPLEMENTS.

In Broach district, the field tools and implements used by agriculturists are chiefly old and indigenous in type, though some progress has been made in introducing modern improved implements. Ploughs, harrows, levellers, clodcrushers, seed drills and hoes are the main implements used by farmers during the various phases of cultivation. Besides these, several hand tools are also used for sundry

jobs on the farm. Iron ploughs are, however, replacing the indigeneous wooden ones. Tractor driven ploughs and disc harrows are gradually being introduced in connection with large scale farming. Highly developed tractor drawn implements such as drills and combine harvestors are not in use. Lately, pumps worked by electric motors and oil engines have been coming into use in certain parts of the district.

Ploughs.

The plough in Broach district is known as *hal* or *pat*. The word *pat* is derived from the appearance of the body which is usually flat. The shoe of the plough is separate and the share is fixed to the shoe. Shoe is fixed to the body with the help of wedges. The angle can be changed by wedges. The shoe is pratically changed every year. Ploughs are used for preparing lands for cultivation of rabi crops, for interculturing cotton lands and for sowing seeds of rabi crops such as lang and gram, especially in hard soils. When used for sowing purposes, the plough remains the same but shoe is changed. The shoe of the plough has a hole for fixing tube and bowl; and the seed is dropped from the bowl. A plough works upto a depth of 4" to 5", and it costs Rs. 30-0-0 in Broach district.

Harrows.

Harrow *(karab)* is used in preparation of land for both *kharif* and *rabi* crops, for destruction of weeds, for breaking clods, and for interculturing cotton crops and also serves the purpose of a light plough or a grubber when coulters are fixed in place of prongs and also serves in sowing rabi crops like jowar and wheat when seed bowls and tubes are attached to the coulters. Harrows are used in this district on lands which crack too much during the summer and swell too much during the rains. The body of the harrow is always scooped out and if worked properly the land appears in ridges and furrows. The body of harrows in Broach is always heavier than those of other neighbouring areas. The head piece is prepared from babul wood by scooping out the wood. The beam is of teak pole, bifurcated and fixed in the head piece. The beam has one, two or three nails at the end where hitching is done. Adjustment of hitching at these points makes implements work shallow or deep. Prongs are made of iron prepared from square iron bars. Square bars are driven in the head piece to be made tight by drawing wedges. The end for fitting in blade is made tabular for fitting blades. Blades are prepared from flat iron or steel bars. The blade is a conical one and works upto 3" to 4". The area worked with a harrow depends upon season, conditions of weeds, and varieties of soils and varies from 20 gunthas to 2 acres. There are two types of blade harrows namely *ardhia* and *ponia,* the price of them being Rs. 35 and Rs. 25 respectively.

Seed drills.

Sowing of all crops in this district is done with the help of seed drills and seed is dropped into the fields through the seed bowl. Seed drills are known as *vavaneas* and are of three types :—

(1) One-coultered seed drill,

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(2) Two-coultered seed drill, locally known as *Fadko;* and

(3) Three coultered seed drill, locally known as *Trifan* or *tarfan.*

One-coultered seed drill is usually the plough with sowing arrangements and is used for sowing rabi jowar, wheat, gram, lang and castor. This seed drill is used especially in hard soils and when moisture is to be tapped at a greater depth. Sometimes harrows are used instead of plough for this purpose, particularly when rabi crops like jowar and wheat are to be sown at a distance of 2 feet in between rows.

The two-coultered seed drill is known as *fadko* and when the distance between the two coulters is 3 feet or more it is known as *Vekhelu.* Seed drill with three coulters is locally known as *trifan* or *tarfan* and is used if the distance between the two coulters is upto 18". It is used especially to sow cereals during the kharif season or for sowing mixed crops in different rows.

Cereals like kodra, bajri etc., are sown 18" apart with a *trifan* 18". Cotton is drilled with 36" drill or by closing the middle coulter of the 18" three-coultered drill. Cotton and rice are drilled in alternate rows by 18" or 30" drill. Cotton alone is drilled 5 feet apart by using 30" two-coultered seed drill as single-coultered drill. A seed drill during the rabi season can sow 1½ to 2 acres in a day while 6 to 8 acres can be covered for cotton sowing. A *trifan* seed drill costs Rs. 30-0-0 while others cost Rs. 36-0-0.

Hoes.

Hoes (*Karabdies*) are miniature harrows and are used for interculturing crops. These hoes are usually heavy ones. Harrows are also used in place of hoes in cotton and other crops where distance is more and hence suitable, for working. These hoes are made of wood and a complete pair of hoes costs Rs. 32-0-0.

Plank.

Plank (*samar* or *patari*) is used for breaking clods and covering seeds after sowing. The same is used for standing crops like jowar, bajri, and kodra. The clods of black soils are often hard and heavy and do not break easily; therefore a heavy log of wood is used for breaking such clods. A *samar* costs Rs. 30-0-0.

Yokes.

Yokes (*Dhunsari*) used in this district are of straight types and pins are permanently fixed in yokes by driving nails or wooden pins. One nail is driven in the centre of the yoke. Yokes are measured by the cultivators in span (9 inches) and calculated from pin-hole to pin-hole. One that is used for harrow is of 9 spans and that for ploughs of 7 spans. Harrow yoke is used for interculturing in cotton crop sown 37" apart or 60" apart. A 6½ feet yoke costs Rs. 7-0-0.

Mandtools.

Besides the tools worked with the help of bullocks, there are a few tools which are utilised in various other agricultural operations and are worked by hand. These are : the *khurpi* (weeding hook); the *datardu* (sickle); the *vansi,* (the serrated sickle fixed on one bamboo piece used for cutting branches, shrubs or trees and for repairing hedges); the *kuhadi* (axe); the *kodali* or *kundli* (the pick axe);

the *paryethi* (the wooden rake) used mainly during threshing operations and the *arti*, used for cleaning blades etc., in fields.

CHAPTER 5. Agriculture. IMPLEMENTS. Repairs and Replacements.

Local indigenous implements namely, ploughs, harrows, hoes, seed drills and other requisites are usually repaired and the worn out parts replaced by local carpenters and blacksmiths of the villages. Sometimes they experience difficulties in getting suitable types of iron and steel for preparing the above mentioned implements.

Agricultural Machinery and Implements.

In the year 1956, in Broach district, there were 57,171 wooden and 467 iron ploughs, 32,081 carts, 10 sugarcane crushers (4 worked by power), 537 oil engines with pumps for irrigation purposes, 9 electric pumps for irrigation purposes, 52 tractors (including one belonging to government), and 217 *ghanis* (of which only 3 were of less than five seers).

Following improved implements have been introduced in this district by Government :—

(1) Karachi plough
(2) Hyderbadi plough
(3) Circular chaff cutter
(4) Winnowing fan
(5) Jowar stone-roller
(6) Gandhi - Alan hoe
(7) Wheat thresher
(8) Plant puller
(9) Shovel cultivator
(10) Zamindar plough
(11) Sulphur dusting gun.
(12) Mixing drum
(13) Bucket sprayer
(14) Marut Pump
(15) Foot pump (Maruti).

LIVESTOCK.

Livestock forms an important item in the equipment of a farm. A farmer usually keeps a pair of bullocks and a few cows, and in addition, a few sheep, goats and poultry. As yet not much headway has been made in this district in the use of mechanical implements and hence bullock driven ploughs, carts, water lifts and other implements are in common use. In fact, in rural areas, a farmer's status and efficiency are judged by the number of cattle he possesses. A recent census of the district (1956) results of which are given below, shows that considerable increase has taken place in the livestock wealth since the compilation of the last Gazetteer.

TABLE No. 25.

Livestock in Broach District : Cattle-1956.

Classification of Cattle	*Cow class.*	*Buffalo class.*
1. Working Bullocks over 3 years kept for work only.	1,13,640	161
2. Bulls and Bullocks over 3 years not used for breeding or work.	885	104

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TABLE No. 25—(*contd.*)

1	2	3
3. Breeding cows over 3 years for breeding or milk production.	37,142	47,804
4. Cows over 3 years used for work only	58	110
5. Cows over 3 years not in use for work or breeding purposes.	152	113
6. *Young stock*—		
(a) under 1 year		
(i) male	8,449	5,638
(ii) female	7,054	13,932
(b) 1-3 years		
(i) male	18,172	2,400
(ii) female	12,070	15.899
7. Breeding bulls over 3 years kept or used for breeding purposes only.	197	211
Total	1,97,819	86,372

In addition to these cattle, Broach district in 1956 had 10,567 sheep, 85,289 goats, 6,344 horses and ponies, 1,736 asses and 1,25,563 poultry and fowls. These animals, though exactly used on the farm, are useful to the farmer in a number of other ways and can be classed as agricultural livestock.

The following table gives comparative figures of livestock in Broach district in 1874-75 and 1956 ·

Classification of livestock.	*1874-75*	*1956.*
1. Bullocks	67,570	1,41,343
2. He-buffaloes She-buffaloes	56,442	86,372
3. Cows	15,789	56,476
4. Sheep and goats	33,276	95,856
5. Horses	3,211	6,344
7. Asses	1,809	1,736

Considerable increase is seen under every class of livestock though variation is not the same in the case of each class. Though due allowance for the increase should be made in respect of the

merger of adjoining State territories, the fact remains that the increase in livestock population has been considerable. The number of bullocks increased twofold and of cows more that threefold while the increase in the number of buffaloes was less. Goat and sheep also recorded quite a large increase.

In this district, as in other parts of the country, bullocks and he-buffaloes are mainly used for heavier agricultural work on the farm, and cows and she-buffaloes are mainly kept for purposes of breeding and milk production. Bullocks are the common animals in use in farm work and their large number indicates their relative importance in agricultural operations and also rural transportation. These cattle belong mainly to the imported varieties, the important among them being the *kankrej* and the *malvi*, besides some local non-descript varieties. Among buffaloes, the *Surati* buffaloes are more commonly found in Broach district. The kankrej cows and bullocks are costlier than other types. A *Kankrej* cow costs about Rs. 300 to Rs. 400 and a pair of bullocks of the same variety between Rs. 1200 and 1600. Prices of local varieties are Rs. 100 to Rs. 150 per cow and Rs. 800 to Rs, 1000 per pair of bullocks. The prices prevailing for a *kankrej* breeding bull ranges between Rs. 400 and Rs. 600. The *Surati* milch buffaloes can be purchased at a price varying between Rs. 600 and Rs. 800 each.

Cows and she-buffaloes are kept mainly for milk production. She-buffaloes are growing in popularity largely because of their higher milk yield. The total production of milk in the Broach district has been estimated at 2,29,250 maunds per year. The cattle provides valuable farm yard manure and 3,12,000 cartloads of manure are collected annually, valued at Rs. 12,48,000.

Horses, and asses, though not used for agricultural operations, are classed as agricultural livestock. These animals are mostly used for drawing transport vehicles and sometimes as pack animals.

In addition to cattle, Broach district has a large number of sheep and goats, 10,567 and 85,289 in number respectively. The breeds of sheep are the *Kathiawar* type. The goats are of two types — one tall and black coloured and another white and low set. These animals are valuable assets as they produce wool, hair, skin and mutton, and in the case of goats milk also. It has been the usual practice of farmers of this district to keep a few sheep and goats on the farm along with other cattle. Goats and sheep for mutton cost between Rs. 50 and Rs. 80 each. Six thousand pounds of wool are produced annually in Broach district.

The keeping of poultry is an important cottage industry in rural areas, and eggs, fowls, and ducks are regarded as valuable kinds of food. In the year 1956, the number of fowls and poultry was estimated at 1,25,563.

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Sources of Supply.

Broach district is usually a deficit district as regards its supply of working bullocks. Cattle dealers bring bullocks from North Gujarat and Rajasthan and sell the same at Broach, Ankleshwar and Hansot. There is no system of weekly cattle markets in Gujarat akin to the one prevalent in other parts of Bombay State.

Veterinary Dispensaries.

At present there are nine veterinary dispensaries in the district at the following places : Broach, Ankleshwar, Vagra, Jambusar, Rajpipla, Jhagadia, Valia, Dediapada and Sagbara.

Breeding.

There is no livestock farm in Broach district. Premium bulls are supplied for breeding and grading up of the village cattle under existing premium bull-system. The premium bulls required for improvement of village cattle are supplied from the cattle breeding farms at Charodi, Anand and Surat under the Anand Institute of Agriculture. There are 18 such premium bulls in Broach district Improvement is done by means of locating premium cows with suitable cultivators wherever premium bulls are located. There are 72 premium cows located in the district. The breed of these premium bulls and cows is *Kankrej*.

In addition, 4 supplementary breeding centres have been established in the district with the co operation of approved cultivators for production of pedigree stock of cattle. Each centre consists of a group of 5 villages wherein 10 cows and 1 premium bull of the *Kankrej* breed are located in each village with the approved cultivators.

Two cattle shows are held annually in the district. The Agricultural Department also carries on propoganda for construction of pits for the storage of silage and fodder making. Assistance is also provided to 2 cattle breeding societies in Broach district — one at Shera and the other at Kalak. These societies have been given grazing lands for the purpose of rotational grazing and for the improvement of grass lands.

There is no sheep breeding farm in Broach district as the sheep breeding industry is not of much importance in the district.

There is no poultry farm in this district. But with the assistance of the Mission School at Ankleshwar, improved stock of poultry is supplied to approved villages. Annually 10 improved cocks and 60 hatching eggs are supplied in this district. There is also one poultry premium given to one approved poultry breeder in Broach district.

The estimated quantity of livestock products and their value in

1955-56 was as under:—

TABLE No. 26.

Livestock Products : 1955-1956.

	Item.	Quantity.	Value in Rs.
1.	Buffalo calves	37,869 (No.)	30,29,520
2.	Cow calves	45,745 (No.)	45,74,500
3.	Milk	21,132 (B. Mds.)	4,22,640
4.	Manure	9,48,429 (Cart loads)	29,45,287
5.	Hides	1,55,370 (No.)	38,84,250
6.	Eggs	37,50,000 (No.)	4,68,750
7.	Wool	16,850½ (Lbs.)	67,402

TABLE No. 27

Livestock Prices - 1948-49

Livestock	Variety	Unit	Value Rs.
1. *Bullocks*	Kankrej	Pair	1200 to 1600
	Local	,,	800 to 1000
	Kankrej breeding	Each	400 to 600
2. *Cows*	Kankrej	,,	300 to 400
	Local	,,	100 to 150
3. *Milch Buffaloes*	Surti	,,	600 to 800
4. *Goats & Sheep*	For Mutton	,,	50 to 80
5. *Poultry*	For Mutton	Per Bird	4 to 6
6. *Eggs*	Country	10 to 12	1
	Improved	Per Dozen	2

IRRIGATION

The rivers and their tributaries in Broach are too forceful and denudational in their action to make gravitational irrigation possible in the agricultural area surrounding them. Therefore, irrigation by dams and canals does not play any significant part in the agriculture of Broach. But along the river beds, there is usually enough subterranean water which can be trapped by sinking wells for domestic as well as agricultural use. The tract called *bara*, along the seashore, is subjected to tidal effects all the year round. Percolation wells in this area are mostly brackish and therefore unsuitable for irrigation. The district gets an assured rainfall during the kharif season which suffices for kharif crops and rabi crops do not require any additional moisture more than what is there in the soil. Hence, irrigation plays a very small role in the agricultural economy of the district. This is evident from the fact that only 8,916 acres of land are under irrigated farming out of about eleven lakhs of acres under

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crops. The following statements show the area under irrigation and sources of irrigation in Broach district:—

TABLE No. 28

Source of Water Supply and Area Irrigated therefrom in each taluka of Broach District in 1955-56.

Taluka.	Government Canals		Wells	No. of wells used for domestic purposes only.	No. of wells not in use.	Reservoirs	Tanks with ayacut less than 100 acres	Number of oil engines.
	Number	Mileage						
Broach	3	22-6	62	541	157	—	409	54
Ankleshwar	—	—	58	395	80	3	83	91
Wagra	—	—	—	292	81	—	335	13
Amod	—	—	18	312	31	—	—	45
Hansot	—	—	—	249	25	25	52	25
Jambusar	—	—	38	1,288	182	28	59	50
Nandod	—	—	109	45	—	—	—	19
Jhagadia	—	—	151	402	3	—	1	74
Valia	—	—	55	107	60	—	75	61
Dediapada	—	—	—	34	—	—	—	1
Sagbara	—	—	42	116	—	—	—	3
District Total	3	22-6	533	3,781	619	56	1,014	436

TABLE No. 29

Net Area Irrigated by Different Sources of Irrigation in Broach District in the Year 1955-56.

Taluka	Government Canals	Tanks	Wells	Other Sources	Total	Percentage of Net area irrigated to net area sown.	No. of Wells having independent ayacuts	No. o Wells supplementing recognised sources of irrigation.
Broach	642	—	2,900	136	3,678	2.8%	—	—
Ankleshwar	—	—	1,664	—	1,664	2.6%	—	—
Wagra	—	—	128	—	128		—	—
Amod	—	—	454	—	454		—	—
Hansot	—	776	—	—	776	1 3%	—	—
Jambusar	—	—	79	89	168		—	—
Nandod	—	—	225	56	281		—	—
Jhagadia	—	6	647	245	898		140	11
Valia	—	—	717	—	717	—	55	—
Dediapada	—	—	1	16	17		—	—
Sagbara	—	—	23	112	135	0.16%	—	—
District Total	642	782	6,838	654	8,916		195	11

The above statement shows that 8,916 acres of land are under irrigation in Broach district of which larger areas are to be found in the talukas of Ankleshwar, Valia, Jhagadia, and Broach. Areas of scanty irrigation are to be found in the talukas of Dediapada, Wagra, Sagbara and Jambusar. Wells are the chief source of irrigation in the district. There were 533 wells in 1955-56 and accounted for 6,838 acres of land under irrigation. The talukas of Nandod and Jhagadia account for 260 wells. Out of the total of 533 wells, 481 were masonry and 52 were non-masonry. The talukas of Ankleshwar and Broach had more than 4500 acres under well irrigation, followed by Valia (717 acres) and Jhagadia (647 acres) talukas. Canal irrigation has been reported only from Broach taluka. In 1955-56, there were 3 government canals which accounted for the 642 acres under canal irrigation. These are in fact small drainage channels meant for removing waters from the flooded banks of the river Narmada. There were 56 reservoirs of which 28 and 25 were in Jambusar and Hansot talukas respectively. Lastly, there were 782 tanks of which 776 were in Hansot taluka and 6 in Jhagadia taluka.

The following tables show the distribution of irrigated area under food and non-food crops :

TABLE No. 30

Area of Food Crops Irrigated in each Taluka of Broach District in 1955-56.

Taluka.	Rice	Wheat	Jowar (Rabi)	Masur	Sugar-cane	Miscellaneous Food Crops	Total Food Crops
Broach ...	337	620	913	110	7	305	2,292
Ankleshwar ...	—	35	370	100	3	826	1,334
Wagra ...	—	—	—	18	—	67	85
Amod ...	—	—	—	19	—	159	178
Hasnot ...	775	1	—	—	—	—	776
Jambusar ...	—	—	—	128	—	3	131
Nandod ...	—	57	—	34	27	52	170
Jhagadia ...	10	210	—	141	6	125	492
Valia ...	—	—	—	38	3	161	202
Dediapada ...	—	—	—	17	—	—	17
Sagbara ...	—	—	—	64	5	—	69
District Total ...	1,122	923	1,283	669	51	1,698	5,746

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TABLE No. 31

Area of Non-Food Crops Irrigated in each Taluka of Broach District 1955-56.

Taluka	Cotton	Tobacco	Chillies	Ginger	Fodder Crops	Miscellaneous Non-Food Crops	Total Non-Food Crops	Total area under Irrigated Crops (Food) & Non-Food Crops)
Broach	1,165	—	—	—	211	10	1,386	3,678
Ankleshwar	—	—	—	5	294	31	330	1,664
Wagra	—	—	—	—	40	3	43	128
Amod	—	—	—	–	229	47	276	454
Hansot	—	—	—	—	—	—	—	776
Jambusar	—	5	32	—	—	—	37	168
Nandod	—	—	34	2	—	75	111	281
Jhagadia	—	—	—	—	406	—	406	898
Valia	515	—	—	—	—	—	515	717
Dediapada	—	—	—	—	—	—	—	—
Sagbara	—	—	64	—	—	2	66	135
District Total	1,680	5	130	7	1,180	168	3,170	8,916

Food crops receive relatively more irrigation, rice and rabi jowar occupying about 2,400 acres of total irrigated area. Among the non-food crops acreage under cotton and fodder crops occupied most of the non-food crop irrigated area.

Irrigation problem, being not so important in this district, did not attract the attention of the Government and it was only after the integration of Rajpipla State that irrigation works were taken up in hand. Even then, there are no irrigation or lift irrigation schemes completed in this district.

However, Government have recently undertaken eight irrigation works which include reconditioning of an irrigation tank in Bharan (Taluka Ankleshwar) and constructing an irrigation tank at Gowali (T. Jhagadia) a bandhara across mokhadi khadi, a bund between villages Gowali and Mulan (T. Jhagadia), a bund across Amala Khadi (T. Ankleshwar), a masonry weir across Dhadhar river near Mapnad (T. Jambusar), a masonry weir across Nahier Khadi (T. Amod) and a bund across Buva Khadi near Velit (T. Wagra). In the year 1953-54, construction of works had already started at Gowali while other projects were being finalised. These schemes would cost Rs. 19,78,036 and when completed would bring 6,365 acres under irrigation.

There are five lift irrigation works in operation and four under construction and they are under the control of the Agricultural Department. Works already functioning are located at Jamor, Angareshwar, Nikora, Bhalod and Limodra; and they together can irrigate 8,218 acres of land. The other lift irrigation schemes are to be located at Samalpitha, Bedoli, Kabirgam and Dhaloli.

Government have, in the year 1953-54, undertaken 32 irrigation works under Special Loan Programme for the Bombay State in order to accelerate the grow more food campaign. Out of these 32 works, there are 15 second class irrigation tanks which are either desilted or repaired and 17 field drainage channels. It may be stated that most of the area of this district is under black cotton soil and its salient feature is that water has to be darined off from fields by putting up field drainage channels to facilitate the sowing of crops in time, as a result of which the yielding capacity of the fields increases.

SEED SUPPLY.

There are different methods of obtaining seed adopted by cultivators in the Broach district. A majority of the well-to-do cultivators usually preserve the seeds produced on their own farms in *palas* containing wheat *bhusa* in order to keep the seeds in proper condition. They usually do not rely upon other sources except only under unavoidable circumstances. In the case of cotton seed, the selected variety is purchased either from the Government seed depot or from the ginning factories. The poorer cultivators many a time do not afford to keep the seed due to unfavourable circumstances and they get their requirements from village merchants or seed merchants or from their landlords. Some farmers often exchange their surplus seeds with those of others according to their own requirements.

The Revenue Department, in 1943-44, took over the work of distribution of seeds of food grains because of the grow more food campaign and rationing etc. Seed is selected by the staff of the Agricultural Department and preserved well in Government godowns located at suitable places in each taluka and distribution is done well in advance of the sowing period by the staff of the Revenue Department in co-operation with the Agricultural Department.

Seeds of pulses, oilseeds, condiments and spices, fodder crops like sundhia and lucern are purchased by growers from local seed dealers and nurseries. Government, through agricultural farms, arranges for the distribution of some improved seeds such as Vijay cotton, Suyog cotton, Jowar B. P-13, Jowar M. 35-1; Wheat Niphad-4. Paddy K-184 and castor seed No. 20. It should, however, be noted that only first and second stage distribution work is being carried out departmentally. The rest is being covered by natural spread. The following statement gives the figures regarding the supply of improved seed (as received from the Department in 1957):—

Improved Seeds.	Quantity distributed. (B. Mds.)	Area covered in acres.
1. Paddy Z-31	10-20	21-0
2. „ E. K. 70	10-20	21-0
3. Sukhvel Paddy	1-0	2-0
4. Kamod „	1-10	3-0

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Improved Seeds	Quantity distributed. (B. Mds.)	Area covered in acres.
5. Jowar B. P. 53	70-20	564-0
6. Jowar No. 8	70-0	560-0
7. Bajri 207	5-0	50-0
8. Groundnut Ah. 32	3-0	2-0
9. China Mug	1-0	14-0
10. Wheat Kenphad 25	37-0	37-0
11. Lang T. 2.12	35-0	70-0
12. 134X CO2M Cotton	50-0	594-0
13. 170 X CO2	1-0	12-0

The Agricultural School at Bhuwa in Broach taluka has been converted since April 1948 into a Crop Breeding Station where cereals, pulses and oilseeds crops grown locally are being improved by plant breeding. The nuclear seed of the improved rabi jowar -Jowar No. 8 evolved at Broach. is being multiplied on 5 acres every year and 2000 lbs. of seed of this strain are being annually supplied to the District Agricultural Officer Broach for further multiplication and distribution in Broach district. Jowar No. 8 is superior to local varieties, as it yields about 9% more than the local ones. About 25,000 acres have been covered with this seed and it is expected that in a couple of years' time the entire suitable area will be covered with jowar No. 8. Improved seeds of Jowar No. 53 and M. 35-1 were also supplied to needy cultivators. The total area suitable for Jowar No. 53 is 25,000 out of which 10,000 acres have actually been covered. The total area suitable for jowar M-35-1 is only 2,000 acres and 1,000 acres have been covered. The entire area suitable for the two varieties is expected to be covered in a couple of years' time.

So far as improved seeds of wheat are concerned, an area of about 80,000 acres is suitable for wheat 224 (Gulab) and about 20,000 acres for Niphad-4. Out of the 80,000, the major portion is covered with a mixture of local and Gulab varieties. Niphad -4 is recently introduced and hence very few acres are covered with that strain.

The Vegetables Development Scheme was started in the year 1947 with a view to extending the cultivation of sweet potatoes and vegetables. Seeds of good varieties of vegetables and sweet potatoes are distributed by the District Agricultural Officer. In the year 1951-52, 298 acres of land were brought under this scheme.

As regards cotton seed, improved seeds of Vijay and Suyog Cotton are being multiplied and distributed in this district. The

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total acreage suitable for Vijay Cotton is 2,50,000 out of which 2,15,000 acres have been actually covered while that for Suyog is about 1,50,000 acres and it is gratifying to note that the entire area has been covered.

Cotton Breeding Scheme at Broach.

This scheme is carried out at the Cotton Breeding Farm, Broach and is being partly financed by the Indian Central Cotton Committee. The object of this scheme is to improve the popular cotton strain, Vijay, both in respect of its quality and its early maturity so as to escape frost. Promising types viz. 66-16, 98-24, 98-41 (early) and E. 22 (very early) were tried on the Government farm and in the district, together with the Surat strain 3652. Type 66-50 has shown the best performance both in respect of yield and staple length, followed by strain 3652. The character of early maturity was not distinctly observable during the year 1950-51 probably due to the character of the season. The total quantity of seed of Vijay Cotton stocked for distribution during 1951-52 season was 59,50,600 lbs.

MANURES.

In rural areas, the dung of cattle, sheep and goats, stable litter and village refuse are used for the purpose of manuring fields. Cowdung is usually used by those who have stall-fed cattle or those who are in a position to purchase cowdung. As, however, cowdung is very commonly used as fuel in rural areas, there is a dearth of it for manurial purposes. The dung and the urine of sheep and goats are valuable manures and owners of sheep and goats, usually *bharwads* and *rabarics* are paid in cash to graze their goats and sheep in the fields continuously for two or three nights. *Bharwads* usually move from villages to villages while *rabaries* stay in a particular village only.

Of late the conversion of town and farm refuse into compost manure is becoming more common, especially after the inauguration of the grow more food campaign in 1945-46. In rural areas, pits are dug and filled with farm refuse, cowdung, stable litter etc. and the contents are allowed to decompose. The pits are opened after a year and the farm yard manure thus produced is distributed in the locality. The present annual production of farm yard manure has been estimated at 1,04,000 tons. It ordinarily contains about 0.7 percent nitrogen. The district requires 16,68,820 tons of farm yard manure for agricultural purposes. The Agricultural Department has been propagating better methods of manure composting, and if these methods are adopted, it will be possible to increase not only the total outturn of farm yard manure but also the nitrogen content of the manure to 1.5 percent. The Department of Agriculture, in order to increase production of the farm yard manure, gives Rs. 2 per pit of the size 10'x6'x3' as a subsidy to induce growers to adopt improved methods of compost making. The following table shows the progress made regarding compost making in the year 1956-57:—

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TABLE No. 32

Compost Making in Broach District, 1956-57.

	Rural Compost.	Farm Yard Manure.
(a) No. of pits dug	1,615	600
(b) No. of pits filled:		
(1) Old	4,678	—
(2) New	154	600
(c) Pits refilled	1,388	3,757
(d) Pits emptied	103	3,757
(e) No. of villages in which work carried out:	208	196
(f) No. of cultivators who took part	1,900	507
(g) Area covered in acres.	103	3,757

Town refuse is utilised for making compost manure by some of the municipalities in the district. They have adopted what is called the Bangalore process and in 1951-52, five of the municipalities prepared 2,195 tons of compost and distributed 1,125 tons in the district.

As a result of vigorous propaganda, the use of oilcakes and fertilizers is increasing substantially year after year. The use of cakes and manures on an appreciable scale is found under the assured conditions of rains and irrigation. On an average nearly two hundred tons of cake and 300-400 tons of manure mixtures and fertilizers are applied to lands in which paddy, wheat and other irrigated crops are grown. Ammonium Sulphate is applied to cotton fields but not on an extensive scale. The Agricultural Department also distributes groundnut cake, manure mixtures and fertilizers as and when stocks are available. In the year 1950-51, the District Agricultural Staff distributed 495 tons of groundnut cake for food crops, and 10 tons of groundnut cake for subsidiary crops, 26 tons of sulphate of ammonia, 125 tons of manure mixtures and 10 tons of super-phosphates in the district.

The quantity of farm yard manure to be applied varies from field to field and from crop to crop. The farm yard manure is applied at the rate of 5 tons per acre of irrigated crops and 2½ tons per acre of non-irrigated food crops.

Jowar is mainly a rabi crop and is rarely manured. Wheat is grown in the alluvial *bhata* soils of high fertility and hence receives

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no manure. Rice is grown in the *kyari* lands of the coastal area and is manured once in two or three years at the rate of 5-10 cart loads of farm yard manure per acre. In some parts, green manuring with *sann* followed by 400 lbs. of farm yard manure per acre is also applied. Cotton, though the most important among the crops, is not regularly manured. Groundnut, when grown alone on sandy soils, receives a dose of 10 to 20 cart loads of farm yard manure per acre. Whenever possible, sheep folding is also practised. Bajri and gram are grown in rotation and are manured very seldom. Mango trees are manured at the rate of 100 lbs. of manure per tree. Guava and Papaiya are manured twice yearly with the farm manure. Vegetable crops receive the farm yard manure at the rate of 20-30 cart loads per acre. A special manure mixture 9:9 (containing 9 per cent. of nitrogen and 9 per cent. phospheric acid) is now being recommended by the Agricultural Department for vegetable crops at the rate of 300 to 400 lbs. per acre.

PESTS.

There are various pests of crops and mention is made of them in the following paragraphs. The damage done by different pests cannot be accurately estimated, as the extent of it depends upon the severity of the infestation in any particular year. The remedial measures mentioned against the different pests described below are such as may be adopted by cultivators at the minimum cost.

Cereals.

Gabhmaro Kido.

Gabhmaro Kido, the jowar stem borer (*Chilo Zonellus*). This pest is active from May to October and the damage done is occasionally reported as serious. These caterpillars bore into the central shoots of the plant and destroy it from within.,In order to destroy this pest, stubbles of the previous harvest are uprooted and burnt; the jowar *kadbi* should be cut into half inch bits for the purposes of storing. These hibernating caterpillars are wholly destroyed from the fields by burying jowar stubbles below ground five inch deep for about two months.

Katera.

Katera, the katera hairy caterpillars (amascta sp.). This is a serious pest of annual occurrence and is active in the kharif season. Caterpillars feed voraciously on young jowar plants and destroy them. The pest is a short seasoned one but the damage done is often serious. In order to control this pest light traps are used to attract moths at the very emergence of the pest. These caterpillars are baited with poison baits prepared from cut pieces of cactus mixed with molasses and destroyed later on. Recently, spraying the affected crops with pyrocolloid 1 in 500 parts of water has been found effective in controlling the pest.

Pulses.

Long pod borer.

Lang pod borer (*Heliothes sp.*)—These caterpillars infest the crops of lang, tur, gram, val and other pulses. They feed on the developing pods and destroy them. This pest is active from October to February. In the initial stages of infestation the caterpillars may be hand picked and destroyed. As a preventive measure, the land should be harrowed deeply after the harvesting of the crop.

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COTTON. Jassids.

Jassids on cotton (*Emposca sp.*)—This pest affects the crop seriously during the early stages of the crop growth. The nymphs and adults suck the sap from the leaves and devitalize the growing plants. This pest can be controlled by spraying fish oil resin soap.

Kapas Jindvano Kido..

Kapas jindvano kido, the cotton boll worm, (*Earias fabia, Earias insulana* and *platyecha gossypiella*). This pest sometimes attacks cotton fields seriously. The caterpillars damage the cotton bolls and shoots with the result that bolls fall down prematurely. This pest is active from July to September. Its control measures include the removal of cotton stalks after the harvest, destruction of early fallen bolls with the larvae inside, raising malvacious crops like *bhinda* as trap crops and heat treatment for cotton seed for the control of pink boll worms.

Tobacco *Khapardi.*

Khapardi, the grass hoppers on tobacco. This pest is occasionally reported as serious. The nymphs and adults eat the foliage and growing shoots of tobacco. To destroy the pest, the affected crop should be dusted with 5% benzene hexa chloride.

Pests of Fruits and Vegetables. *Anar fruit Caterpillar.*

Anar fruit caterpillar (*Virachola isocrates*)· It is a major pest on pomegranates. The larva bores into the fruits and renders them useless for human consumption. The pest is active throughout the year. To prevent infestation, the growing fruits are wrapped in paper bags and the affected fruits are promptly picked and destroyed.

Bhunga.

Bhunga, the cut worm, (*agrotis. sp.*). This pest generally attacks cruciferous plants like tomato, potato and chillies. Occasionally, the pest assumes serious importance. The larvae cut the growing plants at their collars and feed on the green foliage of the cut plants. It is usual practice to trap these worms in dry grass heaps. In the early mornings, dry grasses are heaped at various places in the infested fields. During the hot parts of the day the larvae seek shelter under such heaps, which along with the caterpillars are detsroyed in the evenings. Frequent interculturing stirring up the soil also helps to check this pest. Poison baits with *paris green* are also found effective.

Chusio.

Chusio, the vegetable aphid. It is a very widely distributed pest and consists of a number of species. Different species infest a number of vegetables such as cabbage, nawalkol, peas, radish, brinjal and *tindora* during the period from September to March. This pest has been effectively controlled by spraying (i) fish oil resin soap (ii) tobacco decoction or Nicotine sulphate and (iii) pyrocolloid solution in the proportion of 1 in 800 parts of water.

Madhio.

Madhio, the mango hopper (*idiocerus spp.*). This pest does considerable damage to the mango inflorescence. The pest is active from December to March. Although it appears every year, sometimes it assumes serious importance. The pest is very widely distributed. The nymphs and adults desap the young inflorescence with

the result that the tender developing fruits fall down prematurely. As a result of research carried out in the past, rusting with 5% D.D.T. and sulphur dust in equal proportions has been widely prevalent in the district and is found effective to control this pest.

Red ants.

Red ants, (*Oecophylla smaragdina*). These are not a pest on fruit trees but are a great nuisance to gardeners particularly at the time of harvest and other operations in the fruit orchards. Their incidence is due to the presence of wealy bugs on the plants. Red ants have been controlled by dusting with 5% Benzene Hexa-chloride with sulphur in 2:1 proportion.

Mango stem borer.

Mango stem borer (*batocera rubus*). It is a widely distributed pest in this district and sometimes it assumes serious proportions. The larvae tunnels into the stem and branches. If young plants are infested, the plants are destroyed. The ways of controlling this pest include extraction of the larvae from the tunnels by means of a thick bent wire, cleaning of larval burrows and funmigation of the bore with a solution consisting of carbon disulphide and petrol in equal proportions.

Udhai.

Udhai, the white ants; occasionally they are reported as infesting the roots of field crops like wheat, sugarcane etc. This pest is widespread and active throughout the year. If the pest is a mound forming species, the white ants hill should be dug and the queen ant should be killed. Poison baiting with *paris green* and wheat bran is also sometimes effective. Application of crude oil with irrigation water helps to drive away the white ants from the infested fields.

Under.

Under, the rat. These rodents are a pest of cultivated crops such as wheat, rice, groundnut, potatoes, sweet potatoes etc., in the fields, and of stored grains in the godowns as well as in houses. In the fields, rates are destroyed by hunting, trapping and poison baiting with barium carbonate or white arsenic or zinc phosphide. In godowns and in houses, rat burrows are successfully fumigated with cynogas "A" dust to kill the occupants of the burrows.

DISEASES.

In addition to the damage done by pests, crops suffer from various diseases. The following are the important diseases of cereal crops in the Broach district.

Cereals.

Angario, the jowar smuts (*Spacelotheca sorghi; spacelotheca crucuta; sorosporium reilianum;* and *tolyposporium chrenbergi*). These are responsible for extensive damage to crops in this district. The smuts are of four types, of which grain smut is the most destructive. In the earlier years, this disease was controlled by dipping the seed in 2% copper sulphate solution, but since 1928, it has been replaced by a unique, safe and cheaper method of sulphur treatment, the cost of which works out only to 2 pies per acre.

Angario.

Angario, the loose smut of wheat (*ustilago tritici*). This disease is confined to the wheat crop of the district and the damage

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in normal years is usually small. This disease is controlltd by a modified solar heat treatment of seed when natural energy of the tropical sun is taken advantage of.

Geru.

Geru, the rust of wheat (*puccima graminis tritici*). This disease occurs annually in wheat fields. It was mainly responsible for the failure of the wheat crop in 1947 and 1948. Late rains are favourable to this disease. Hybrids with *durum* blood suitable for dry tracts with high rust resistance are being developed for combating this disease. The work of testing these strains is carried out at the Wheat Rust Research Station at Mahabaleshwar (Satara district) before they are multiplied.

Ratadio.

Ratadio, the hollow stem of Jowar, is also locally known as *Kharkhana*. This disease is recognised by the peculiar noise made by the affected plants on being blown by winds. It especially occurs in the river bed areas. But the damage is usually small, hence no control measures are undertaken.

Sukaro.

Sukaro, the seedling blight of wheat. This disease is responsible for bad stand and consequent reduction in yield. It affects the crop in the seedling stage. Experiments towards the control of this disease by seed treatments are in progress.

Pulses
Wilt in Lang.

Wilt in lang : This disease causes serious damage to this important crop of the district. Some highly wilt resistant varieties viz : Indore T2-12 and Indore T2-1, combining early maturity and high yielding capacity have been developed and are being rapidly multiplied for general distribution

Cotton.
Mulkhai.

Mulkhai, the root rot of cotton. This disease is confined to the Jambusar taluka where cotton is grown on *goradu* soils. It is favoured by high soil temperature. This disease is sometimes more severe than the cotton wilt and the damage has been estimated between 10% and 25%. As yet no remedial measures have been devised.

Sukaro.

Sukaro, the cotton wilt. This disease is very widespread and causes serious damage particularly in good seasons. The "Vijay" cotton variety has been evolved as a highly wilt resistant strain and is widely replacing the B. D. 8 variety which is susceptible to this disease.

Tobacco.

The tobacco crop of the district suffers from the virus diseases such as mosaic and leaf curl. These diseases are of general occurance and cause serious damage. No remedial measures have yet been found.

ROTATIONS AND COMBINATION OF CROPS.

In Broach district, there are a number of different systems of crop rotations and crop combinations that are followed by agriculturists. The following statement shows in details these systems taluka wise :

TABLE No. 33

Statement showing systems of crops rotations and crop combinations in various talukas of the Broach District.

Taluka or Mahal	Crop Rotation				Crop combinations
	1st year	2nd year	3rd year	4th Year	
Broach ...	Cotton & Paddy	Lang	Cotton & Paddy		*Cotton* and mustard; *Cotton* and Paddy ; *Cotton* and Castor ; *Wheat* and Mustard ; *Jowar*, wal and Castor; *Seasamum* and Tur ; *Tobacco*, Water melon, Kareli and Dudhi.
	Cotton	Cotton	Jowar		
	Lang or Peas	Wheat	Lang		
	Tobacco	Tobacco or Jowar			
	Jowar	Jowar or Tobacco			
Ankleshwar	Cotton	Jowar or Wheat	Cotton		*Cotton*, Paddy, Kodra, Tur, Adad and Chavli; *Jowar*, Tur, Castor and Val ; *Wheat*, Mustard and rapeseed; *Bajri*, Math, Chawali, Mug, tur and sesamum; *Tur*, Mag, Adad, Chawli, and Val, *Tobacco*, Dudhi, and Kareli. *Sesamum*, Rajgira and tur (Khariff Season).
	Cotton	Cotton	Sesamum & Tur		
	Cotton	Groundnut	Cotton		
	Lang	Cotton	Jowar		
	Paddy	Wheat, Jowar or Pulses	—		
	Bajri	Sesamum & Tur	—		
	Pulses	Cotton or Jowar			
Jambusar	Cotton	Cotton	Cotton		*Cotton* and Paddy; *Sesamum* and Tur; *Sesamum*, Kodra and Tur: *Bajri*, Math and Tur.
	Cotton	Wheat			
	Cotton	Wheat	Jowar		
	Paddy	Paddy	Paddy		
	Jowar	Wheat	Jowar		
	Bajri	Cotton	Bajri		
	Bajri	Tobacco, Bajri			
	Bajri	Tur & Sesamum			
Amod ...	Cotton	Cotton			*Cotton* and Paddy; *Bajri and* Math; *Kodra*, Tur and sesamum; *Tur* and Sesamum.
	Cotton	Jowar	Lang		
	Cotton	Paddy	Lang		
	Wheat	Cotton	Lang		

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TABLE No. 33 (*contd.*)

Taluka or Mahal	Crop Rotation				Crop combinations
	1st year	2nd year	3rd year	4th year	
Vagra ...	Cotton Cotton Cotton Jowar Lang Wheat Wheat	Cotton Wheat or Jowar Lang Lang Cotton Lang Wheat	*Paddy*	Jowar	*Cotton* and Paddy; *Bajri*, Wal and Math; *Wheat*, and Mustard.
Hansot ...	Cotton Jowar Jowar Paddy Wheat	Jowar or Wheat or Lang Cotton Jowar Paddy Cotton			*Cotton* and Paddy; *Sesamum* and Tur; *Wheat* and Mustard; *Lang* and Mustard; *Jowar* (Kh.), Mag and Tur: *Bajri* Wal and Math.
Jhagadia ...	Cotton & Paddy Cotton & Paddy Cotton Bajri & Pulses	Jowar Groundnut Cotton or Jowar Cotton			*Cotton* and Paddy; *Paddy*, Sesamum and Tur; *Bajri* and Pulses; *Kharif Jowar* and Pulses.
Nandod ...	Cotton Cotton Paddy Bajri Maize	Jowar Groundnut Gram, Castor or Wal Cotton Tobacco			*Cotton* and Paddy; *Paddy* and Kodra; *Paddy* or Tur; *Paddy* and Sesamum; *Jowar* and Chawli; *Bajri* and Matki; *Udid* and Mug; *Tur* and Mug.

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Dediapada ...	Cotton Paddy Paddy Maize	Jowar Gram Paddy Pulses	Groundnut Pulses — —		*Cotton* and Paddy; *Paddy* and Kodra; *Paddy* and Tur; *Tur* and Mag; *Adad* and Mag; *Jowar* and Mug.
Sagbara ...	Jowar Paddy Paddy Wheat	Groundnut Gram Paddy Gram			*Paddy* and Tur; *Tur* and Mag; *Tal* and Tur; *Mag* and Jowar.
Valia ...	Cotton & Paddy Cotton & Paddy Cotton Cotton Paddy Groundnut	Jowar Bajri Jowar Groundnut Wheat & Wal Cotton and Paddy			*Cotton* and Paddy; *Cotton* (Kh.) and Sesamum; *Cotton* (Kh.) and Castor Seed; *Paddy* and Tur; *Paddy* and Sesamum (Kh.); *Wheat* and Mustard; *Wheat* and Gram; *Lang* and Tur; *Bajri* and Leguminous Crops; *Morla* and Tur; *Bauti* and Tur; *Jowar* and Leguminous Crops; *Gram* and Castor.

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In the Broach district the most prevalent form of tenure is the *rayatwari* tenure which accounts for 68.1% or 7,92,124 acres of occupied land, and only 31.9% or 3,70,965 acres are under the non-rayatwari inam tenure. No land is exempt from paying land revenue except under tenures of contract or agreement or under the terms of any Act of the legislature. In the rayatwari tenure, the land revenue is fixed not upon an estate as a whole or on a village as a whole, but on an individual survey number or sub-divisions of those numbers. Under the *inam* tenure the land is held on a reduced assessment which is not liable to revision and in some cases is even free of any assessment. The land revenue assessments are fixed under the provision of the Land Revenue Code as amended in 1939. Assessment is based not only on advantages arising from rainfall or the kind of crop sown but also on advantages arising from soil, water resources and location. It is on account of this that agricultural lands are divided into three main classes, namely dry crop, rice and garden lands; and the classification value of soils of different grades of productivity are fixed in terms of 'annas'. Land revenue settlements are ordinarily made every 30 years for a taluka. The lands used for agriculture are divided into groups on consideration of physical features and other factors mentioned in section 117-G of the Land Revenue Code. The assessment is fixed on survey numbers and sub-divisions of survey numbers on the basis of standard rates fixed as the result of a settlement or revision settlement made in accordance with the rules laid down in the Land Revenue Code. In the case of an original settlement, the standard rate fixed for a group should not exceed 35 per cent. of the average of the rental values of all occupied lands in a group for a period of five years proceeding immediately the year in which the settlement is directed. In the case of revision settlement, the existing aggregate assessment should not be increased by more than 25 per cent. in the case of a taluka or a group or by more than 50 per cent. in the case of a survey number or sub-division of it. These limits can be relaxed in special cases, such as highly irrigated areas. The principle of varying the annual land revenue demand based on the assessment fixed on the basis of current prices has been accepted. For this purpose a comparison is to be made with the prices for a period of five years immediately preceeding the settlement. In case the current prices are lower than those which were taken into consideration for settlement purposes, a rebate is given on the scale fixed under the rules. In case prices rise, a surcharge is leviable.

The assessment fixed under the settlement is not collected in full in all years. In years of distress, suspension of half or full land revenue is given on the basis of the condition of crops. The annual land revenue demand is then fixed on the basis of the *annewari*, which means an estimate of yield of crops in a particular year relative to the standard normal yield which is equated to sixteen annas. The land revenue thus suspended in one year becomes due for recovery in the next or subsequent years if the crops are satisfactory. In case there is a succession of bad seasons, suspensions more than

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three years old are turned into remissions. The *rayatwari* tenure system is sub-divided into two main forms — (a) old or survey tenure and (b) new or restricted tenure.

(a) *The survey tenure*—It is the most important and predominant form of tenure in the district. It is known as the survey tenure after the system of settlement with the rayats or occupants whose revenue payments are fixed after a careful measurement and classification of their lands. The tenure is often known as "occupancy" tenure. The occupant holds his lands direct from Government. He has a permanent right to hold the land in perpetuity so long as he pays the land revenue to Government as fixed at the settlement. He has full powers to sell, mortgage, sublet or otherwise dispose of the land. The revenue fixed at a settlement is liable to revision at intervals of thirty years.. Till 1939 the revision was based on factors like productivity of the soil, climate and general economic considerations, but according to the amendment to the Land Revenue Code made in that year, rental value has been definitely recognised as the basis of assessment.

Till 1946 the occupant of a land could lease a portion or whole of his holding on annual tenancy at a rent agreed upon with the tenant. But this right has been restricted by an amendment to the Bombay Tenanacy Act, 1939, under which all tenancies were given a duration of a minimum of ten years. The maximum rent was also fixed.

(b) *The Restricted Tenure*—This is a modified form of the rayatwari tenure and is known as the "new tenure". It was introduced in 1901. This form of tenure applies only to new occupancies granted. Under this tenure lands are granted at concessional rates of occupancy price only to *bona fide* cultivators belonging to backward classes, and that too on condition that the land shall not be transferred except with the permission of the Collector. Of course, the land is subject to the usual land revenue.

* Inam tenure

Land under this tenure is technically called "alienated land" which means "transferred in so far as the rights of Government to payment of the rent or land revenue are concerned, wholly or partially, to the ownership of any person", as defined in the Land Revenue Code. The main feature of this tenure is that the land is held on a reduced assessment not liable to revision and in some cases held even free of assessment. The inam lands, have now been settled on their present holders under the Survey Settlement Act of 1863. These inam lands can be classified under four heads as follows:—

"Personal" or "Jat" inams, including *saranjams* and *jahagirs*, generally mean grants by the State for performance of civil or military

* The Special tenures, "Bhagdari" and "Talukdari" which prevailed in the district till 1949 were abolished under the Bhagdari and Narvadari Tenures Abolition Act (Bom. XXXII of 1949), the Talukdari Abolition Act (Bom. LXII of 1949) and the Bombay Personal Inams Abolition Act (Bom. XIII of 1953).

Other *inams*, viz., *Saranjams*, Political *inmas*. *Pargana* and *Kulkarni Watans* have similarly been abolished under recent legislation.

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duty or for the maintenance of the personal dignity of nobles and high officials. Some of them were guaranteed by a special treaty between the Moghals and the British Government while others were settled by the Inam Commission. In the former case the tenure is hereditary and is to last in perpetuity, while in the latter case, it is to last for short or long periods of time as fixed by the Commission. Ordinarily these inams are impartible and inalienable. There are instances in which a jahagir has been held to be partible and alienable but generally devolution of such inams is by the rule of lineal primogeniture, younger members being entitled only to maintenance.

Devasthan Inams.—These are lands granted to religious bodies for maintenance of temples and mosques or similar institutions. The grant is made in perpetuity and the fixed amount of land revenue is not liable to revision. *Devasthan inams* are ordinarily inalienable and also impartible. Succession to them is regulated by the terms of the grant and the customs and usages of the endowment. The holder for the time being manages the inam in the capacity of a trustee for the benefit of the endowment.

Service Inams.—These are holdings of lands or rights to receive cash payments or to levy customary fees or perquisites for the performance of certain services to Government or the community. The holders of such inams or watans are divided into two classes i.e., firstly, district officers like the desais, deshmukhs or deshpandes who were the chief instruments for the collection of revenue under the Peshwas and secondly, village officers useful to Government like patil or kulkarni who were provided remuneration in the shape of lands or cash, and village servants useful to the community such as the *hajams* (barber), *Kumbhars* (bolters), *lohars* (iron smiths), *suthars* (carpenters) *mochis* (shoe-makers) and other village artisans.

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Cultivation of lands by tenants prevails both in inam lands and in rayatwari areas, although to a larger extent in the former than in the latter. Lease of lands to tenants occurs mainly because of landholders leaving villages for better employment in cities. The transfer of lands to non-cultivating creditors has also tended to produce the same effect. These tendencies are clearly brought out in the quinquennial statement of holdings in the district for 1952-53. The extent of tenancy in the district can also be judged from the statement of holdings given earlier in this chapter. In 1952-53, out of the total area of 3,70,965 acres under *inam* tenure in the Broach district, as much as 1,14,568 acres or 30.8 per cent was in the hands of non-agriculturists receiving rents from the tenants cultivating the land. In the remaining 7,92,124 acres, where the rayatwari system prevails, land held by non-agriculturists was estimated at 2,82,717 acres or about 35.6 per cent of the total. Besides the non-agriculturist holders, sometimes even agriculturists holding very large areas rent out portions of their land finding it more profitable to lease out the lands rather than to cultivate them.

According to the Manual of Revenue Accounts, four modes of tenant cultivation are in operation in the district namely, cash rent, crop share rent, a fixed quantity of produce as rent and a rent is service involving some mixture of the foregoing forms of rent. The terms of the contract vary in each case. The cash rent and the crop share rent are the two main forms of rent. Cash rents are preferred by the absentee landlords who usually reside in towns. The landholders who reside in the villages usually rent out lands on the crop share basis. These cash rents are usually paid for grass and garden lands.

Prior to the enactment of the Bombay Tenancy Act of 1939 the relations between landlords and tenants were governed by the provisions of the Bombay Land Revenue Code of 1879. It was found that those provisions did not ensure equality of status to the tenant with the superior holder in matters of contract or agreement. Many tenants who held the same lands for generations did not obtain rights of permanency but continued to be tenants-at-will, liable to be deprived of their tenancy at the will of their landlords. In the absence of any legislation for the protection of tenants, rack renting was a familiar mode of exploitation of tenants by landlords.

The Bombay Tenancy Act of 1939, which was applied to this district only in 1946, was passed with a view to ameliorating the conditions of tenants without injuring the legitimate interests of landlords. Those tenants who had held land for a period of not less than six years immediately preceeding the first day of January 1938 were declared to be "protected tenants". Such tenants could not be evicted unless they ceased to cultivate the land personally or the landlord himself wanted to cultivate the land personally. It provided for the fixing of reasonable rent. Fresh leases were required to be of ten years' duration.

The Bombay Tenancy Act, 1939, was amended in 1946, in the light of experience gained by its working in four districts. The Act itself was, however, replaced by the Bombay Tenancy and Agricultural Lands Act, 1948. The Act of 1948, while retaining the general provisions of the earlier legislation, added new features. The Act has statutorily fixed the maximum rate of rent at one-third and one-fourth of the total produce in case of non-irrigated lands and irrigated lands respectively. It gives powers to the Government to fix rent at a rate lower than the maximum. A valuable right in favour of the protected tenant has been conferred by the Act in the form of the privilege of purchasing his holding from his landlord under certain conditions at a reasonable price. The Act limits the right of a landlord to terminate a protected tenancy on the ground of personal cultivation or non-agricultural use to the extent of 50 acres only. The right of a protected tenant to purchase the lands cultivated by him is limited to the extent of making his own holding amount to 50 acres. He is not allowed to purchase his landlord's land if by doing so it reduces the landlord's holding below fifty acres. The

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onus of continuing a protected tenancy to the heirs of the deceased protected tenant is shifted on to the landlord. Other important provisions of the Act are the ones which enable Government to assume management of the estate of a landholder for the purpose of improving the economic and social conditions of peasants or for ensuring the full and efficient use of land for agriculture. A provision is made for payment to lawful holders of the net surplus in respect of estates taken over for management after deductions of the appropriate cost incurred by Government and the amount, if any, required for the liquidation of debts and liabilities. The Act prohibits transfer of agricultural lands to non-agriculturists, but the Collector may permit such transfers in exceptional cases. The landlord has to transfer his agricultural lands to persons in the following priority:—(i) the tenant in actual possession of the land, (ii) the person or persons personally cultivating any land adjacent to the land to be sold, (iii) a co-operative farming society, (iv) any other agriculturist and (v) any other person who has obtained from the Collector a certificate that he intends to take to the profession of an agriculturist.

The Bombay Tenancy and Agricultural Lands Act, 1948 was recently amended with a view to (i) vesting occupancy rights in lands on the tiller of the soil, (ii) redistributing land by the imposition of ceilings on individual holdings and (iii) providing the facility to the small holders to acquire lands as far as practicable up to the economic holding. The amending Act received the assent of the President of India on March 16, 1956 and came into force from August, 1, 1956.

Land to the cultivating tenant.—The most important feature of the amending Act is that which deals with tenants' right to purchase the land they cultivate. It lays down that, on April 1, 1957, also called the "Tillers' Day" all the tenants who cultivate personally and in respect of whom the landlords have not initiated proceedings by December 31, 1956 to resume land for personal cultivation would be deemed to have purchased the land cultivated by them from the landlords upto the ceiling area at the price to be fixed by the Agricultural Lands Tribunal. In computing the ceiling area the land owned by the tenant is also taken into consideration. Thus the tenant would be permitted to purchase under the Act only so much of land as would raise the total area held by him upto the ceiling limit. The provisions regarding the compulsory purchase is to be implemented by the Agricultural Lands Tribunal after holding an enquiry in the manner prescribed. The purchase price would be fixed at 6 times the rent in the case of permanent tenants and between 20 and 200 times the assessment in respect of other tenants. In case of tenants other than permanent tenants the value of improvements effected by the landlord is also to be added to the price of land. The price so fixed is to be ordinarily paid by the permanent tenant in one lump sum within an year of purchase; other tenants have been given an option to pay the purchase price either in one lump sum or in annual instalments not exceeding 12 with simple interest at the rate of 4%

per cent. It may be noted that in the case of a new tenancy created in future i.e., after the "Tillers' Day", the tenant is entitled to the right to purchase the land cultivated by him within one year from the commencement of the tenancy.

In case a tenant does not intend to purchase land, or fails to exercise the right to purchase the land within the specified period, the Collector has been empowered to terminate the tenancy and to summarily evict the tenant. The land cultivated by the evicted tenant would revert to the landlord. If he holds land which is less than the ceiling area, then, subject to certain conditions, the landlord is entitled to retain only so much area as will be sufficient to raise the area in his possession up to the ceiling. The land in excess of the ceiling area would be disposed of to other persons with due regard to the order of priority stipulated in the Act.

Mention must also be made of the provision by virtue of which no tenancy of any land is liable to termination merely by efflux of time. The rents, which are made payable in cash only, will be payable by the tenant at a rate which will be fixed by the Mamlatdar for a village or a group of villages within the maximum and minimum limits laid down in the Act. These maximum and minimum limits in the case of surveyed and settled areas in which assessment has been fixed are prescribed at five times the assessment or Rs. 20 per acre whichever is less, and at two times the assessment, respectively. The liability of paying land revenue, local fund cess and irrigation cess in respect of the land is transferred to the tenant. But if in any year, the aggregate of the rent, land revenue and local fund cess exceeds the cash value of 1/6th of the produce for that year, the tenant is entitled to deduct from the rent of that year the amount so in excess. It may be noted that as a result of the extension of the special rights conferred on protected tenants to all tenants in general the distinction between the protected and the ordinary tenant has thus been removed. A landlord who intends to resume land for personal cultivation can eject a protected or ordinary tenant subject to certain conditions, provided a notice is served on the tenant for resumption by December 31, 1956. In all cases of evictions, however, the tenant, who is affected, should be left with an area which is equal to or more than half the area leased to him previously.

Ceilings on holdings.—In the Draft Second Five-Year Plan, it is recommended that the policy of imposition of ceilings on agricultural holdings should be implemented throughout the country and that the tenants should be enabled to acquire rights of ownership in lands cultivated by them. It is also recommended that the ceiling should be fixed at three times the family holding for an average family consisting of not more than five members. A family holding has been defined by a Committee of the Land Reforms Panel as the area of land which yields a gross average income of Rs. 1,600 per annum, or a net annual income (including remuneration for family labour) of Rs. 1,200 and is not less than a plough unit.

For the purposes of the Bombay Tenancy and Agricultural Lands Act as amended, an economic holding is defined as (i) 16 acres of jirayat land, or (ii) 8 acres of seasonally irrigated land or paddy land, or (iii) 4 acres of perennially irrigated land. The ceiling limit on individual holdings is stipulated at three times the economic holding. It has been provided that from the appointed day i.e. June 15, 1955, it will not be lawful for any person to hold land in excess of the ceiling area. This restriction is, however, not applicable to the holding under personal cultivation of a landowner on the appointed day. If between the period January 1, 1952 and the date of coming into force of the amended Act i.e., August 1, 1956 the landlord has acquired by surrender from his tenant any area and, if his holding immediately preceding January 1, 1952 was equal to or more than twice the ceiling area, then the whole of such land acquired by surrender is to be at the disposal of the Collector.

Transfers and disposal of land in future.—Apart from empowering the Mamlatdar to enquire into the *bona fides* of all transfers of land effected between June 15, 1955 and the commencement of the Act i.e., August 1, 1956, certain restrictions are laid down regarding the future transfers of agricultural land. Land purchased by tenants under the provisions of this Act can only be transferred with the permission of the Collector. Any surplus land, or the land the purchase of which has become ineffective on the failure of the tenant to pay the price or the land left with the landlord owing to tenant's unwillingness to exercise his right of purchase is placed at the disposal of the Collector of the district. As already stated, the Collector has to sell such land in accordance with the priority list prescribed in he Act. Land cannot be transferred, sold or mortgaged to a person who is not an agriculturist. Further, where a landlord intends to sell any land, he has to apply to the Agricultural Lands Tribunal for determination of reasonable price. After the determination of reasonable price, the land has to be offered according to the order of priority stipulated in the Act.

Exemptions in respect of co-operatives.—The amended Act has provided for some exemptions in respect of co-operatives. Some of the provisions regulating the relationship between landlord and tenant, as also those relating to restrictions on transfer of land, are not applicable to lands held or leased by co-operative societies. The Act distinguishes between such co-operative societies as are (1) 'approved' by the State Government in the prescribed manner and which have for their objects the improvement of the economic and social conditions of peasants or ensuring the full and efficient use of land for agriculture and allied pursuits and (2) all co-operative societies registered under the Bombay Co-operative Societies Act, 1925. The following provisions are not applicable to lands held or leased by 'approved' co-operative societies :

(i) provisions stipulating that rights in respect of land not cultivated by owners of the land on the "Tillers' Day" have to be relinquished,

(ii) provisions stipulating the ceiling limit for individual holdings,

(iii) provisions stipulating that no land purchased by a tenant under the provisions of the Act is transferable without the sanction of the Collector, and

(iv) provisions which require the Collector to sell the land that reverts to the landlord due to unwillingness or inability of the tenant to acquire the land, according to the priority stipulated in the Act.

Exemptions from the purview of some provisions of the Act have also been provided in respect of co-operative societies. Thus for instance, sub-division or sub-letting and assignment of any interest in land held by a tenant is not ordinarily permitted; it is possible for a tenant to mortgage or create a charge on his interest in the land in favour of a co-operative society in consideration of a loan advanced to him by the co-operative society. Ordinarily, land transfers to non-agriculturists are also prohibited. Where the landlord intends to sell any land, the land has to be valued at the rates specified in the Act and has to be sold according to the order of priority laid down in the Act. However, some exemptions have been provided in respect of sales effected by or in favour of a co-operative society under the Bombay Co-operative Societies Act, 1925.

As the land to be purchased by the tenant would be valued at rates specified in the Act, the land mortgage banks in the State envisaged difficulties in recovery of loans already given to non-cultivating landlords who would be relinquishing their rights in land in favour of tenants with effect from the "Tillers' Day". These institutions also found it difficult to advance loans on the basis of valuation of lands followed by them so far. In view of these difficulties, the Government of Bombay, in their Resolution dated April 3, 1956, have decided to guarantee, subject to certain conditions, the losses to the extent of 2 per cent of the amount of loans granted or the actual losses suffered by the Bombay Provincial Co-operative Land Mortgage Bank as a result only of land values going down, whichever is less. Firstly, the Land Mortgage Banks have been asked to advance loans only to those borrowers who own the lands to be offered as security for the loan and who also cultivate these lands. Secondly, these institutions have been asked to value the lands either at 120 times the assessment or on the existing basis (without addition of 20 per cent in any case) whichever is lower.*

There were 688 permanent tenants, 23,929 ordinary tenants and 31,205 protected tenants in Broach district in November, 1957.

Working of the Tenancy Act.

It is no doubt true that the Amending Act of 1955 lays emphasis on the abolition of tenancies and vesting of occupancy rights in lands in the tiller of the soil. Nevertheless, the Act does recognise the

* Reserve Bank of India Bulletin — April 1956 pp 393-395.

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landlord's right to personal cultivation. Section 31, in fact, provides for the termination of tenancy for personal cultivation and non-agricultural use under certain conditions. The following table gives the number of applications filed by landlords for personal cultivation and disposed of under section 29(1) read with section 31 of the Act upto October, 1957:—

TABLE No. 34

No. of applications filed under section 29(1) read with Section 31 of the Act upto October, 1957.

Taluka or Mahal	Notices issued by landlords to tenants for possession	No. of applications filed by the landlords for possession	Number of applications disposed of	Number of Cases: Decided in favour of landlords	Decided in favour of tenants	Pending
1	2	3	4	5	6	7
Broach ...	1,628	876	487	1	486	389
Ankleshwar	1,387	659	437	15	422	222
Wagra ...	833	464	386	4	382	78
Amod ...	919	433	363	6	357	70
Hansot ...	1,711	742	605	16	589	137
Jambusar ...	1,825	987	623	2	621	364
Nardod ..	3,630	2,053	1,079	5	1,074	974
Jhagadia ...	4,117	3,039	1,008	21	987	2,031
Valia ...	1,352	836	466	10	456	370
Dediapada ...	215	132	1	1	—	131
gbara ...	231	162	115	5	110	47
TOTAL ...	17,848	10,383	5,570	86	5,484	4,813

The following table gives a summary of the working of the Tenancy Act during the period between 1952-53 and 1956-57:—

TABLE No. 35

Working of the Tenancy Act in Broach District

Year	No. of cases pending at the beginning of the year	No. of cases received during the year.	No. of cases disposed of during the year.	No. of Case pending at the end of the year.
1	2	3	4	5
1952-53 ...	419	3,137	2,926	630
1953-54 ...	630	3 465	3,315	780
1954-55 ...	780	2,665	2,829	616
1955-56 ..	616	3,589	3,522	683
1956-57 ...	683	6,622	3,076	4,229

Under section 32 of the Amending Act, 1955, on the first day of April, 1957 (the Tillers' day) every tenant was deemed to have purchased from his landlord, free of all encumbrances subsisting thereon on the said day, the land held by him. In this connection fixing of purchase price of lands is of particular significance. Section 329 provides that the Agricultural Lands Tribunal shall, prior to determining the price of the land, give notice to all persons interested in the land. The Tribunal shall also ascertain whether the tenant is willing to purchase the land, and if the tenant is not willing to purchase it, the Tribunal shall make a declaration to that effect, and the purchase shall thereupon be ineffective. The land, in respect of which the purchase has become ineffective, shall be disposed of in the manner provided in sub-section (2) of 32 P. (i.e., summary eviction of the tenant, surrender of land to the landlord or sale to persons in "the priority list").

In Broach district proceedings under section 329 were to commence from January, 1958 according to Government time table. As Registers of Holdings are not yet ready (1957), the exact number of cultivators affected by the ceiling limit is not available and, therefore, the quantity of excess land which will be available to the Collector for disposal cannot be ascertained. However, it has been estimated that 2,106 persons are likely to be affected by the ceiling limit and that there will be about 6,598 acres of land available to the Collector for disposal.

The whole of Rajpipla Division, comprising Nandod, Jhagadia and Dediapada talukas and Sagbara and Valia mahals, has been declared as a Scheduled area wherein the ceiling limit has been prescribed as 60 acres of *jirayat* land. In Broach Division the number of villages declared as Backward area is shown below. The ceiling limit in respect of this Backward area is also 60 acres of *jirayat* land:

Taluka.	*No. of villages.*
Amod	... 6
Hansot	... 6
Jambusar	... 19
Wagra	... 11

In Rajpipla Division and in the above backward villages, the maximum price has been fixed at 100 times the assement. In rest of the non-backward villages the ceiling limit is 48 acres of *jirayat* land and the price of land shall not exceed 200 times the assessment.

The following table shows the number of tenants and the acreage of land which they are deemed to have purchased on Tillers' Day (1st April, 1957) under section 329 in Broach district.

TABLE No. 36

No. of tenants and the acreage of land which they are deemed to have purchased on Tillers' Day

Taluka or Mahal 1	No. of Tenants who are deemed to have purchased lands on Tiller's Day. 2	Acreage of lands which will be purchased by such Tenants 3
Broach	4,995	21,654
Vagra	2,728	25,582
Jambusar	6,130	41,560
Hansot	3,412	19,627
Sagbara	200	1,000
Dediapada	1,089	6,900
Nandod	6,481	15,224
Jhagadia	4,784	20,936
Valia	3,891	13,384
Ankleshwar	4,092	21,915
Amod	2,891	16,530
Total	40,693	2,04,312

Under the Amending Act, 1955, the Mamlatdar has been empowered to enquire into the *bona fides* of all transfers of land and also to validate certain transfers made in contravention of the provisions of the Act. Section 84 A provides that transfers made after coming into force of the principal Act of 1948 (28th December, 1948) and before the appointed day (15th June, 1955) in contravention of sections 63 and 64 by failing to obtain consent of the Collector, shall be validated on payment of a penalty of (i) rupee one, if such transfer is in favour of a tenant, and (ii) five percent of the consideration of Rs. 100, whichever is less, in the case of other transferees. In Broach district out of 9,073 entries made in respect of such transfers 6,543 had been validated by October, 1957.

Section 84 B deals with the transfers made between the appointed day and the coming into force of the Amending Act (August, 1956). In view of the fact that provisions of the Bill had received wide publicity, the transfers effected between such dates must have been made with the intention of defeating the provisions of the Act. The Act, therefore, declares such transfers to be invalid and that the land shall be restored to the person from whom it was transferred or acquired. The consideration money, if any, paid shall be recovered from the transferor as an arrear of land revenue and until such

money is recovered the amount to be recovered shall remain a charge on the land.

However, the final authority regarding the validation or otherwise of the transfer vests in the Mamlatdar. He shall issue a notice in the prescribed from to the transferor, the transferee or the person acquiring such land as the case may be, to show cause why the transfer or acquisition should not be declared to be invalid, and shall hold an inquiry and decide whether the transfer or acquisition is or is not invalid. Out of 2,890 entries made in respect of transfers made under this section only 446 had been validated by October, 1957 in Broach district.

Section 84 C provides that the transfer or acquisition of any land made on or after the commencement of the Amending Act, 1955 shall be invalid. The Mamlatdar shall issue a notice and hold an inquiry as provided for in section 84 B and decide whether the transfer or acquisition is or is not invalid. Out of 585 cases entered under this section only 39 entries had been validated by October, 1957 in Broach district. If the Mamlatdar declares the transfer or acquisition as invalid the land so transferred or acquired shall be forfeited to Government and shall be at the disposal of the Collector for distribution among landless and other persons specified in " the priority list ".

RURAL WAGES.
Payment of Wages according to type of labour.

In almost all the talukas of the Broach district examined, it appears that all the three types of labour i.e., the labour of women and men, boys is used. It appears however that in certain talukas either boy-labour is not generally or if used it is paid at the same rate as that for adult women.

Besides the payment of daily cash wages, the labourers in this district are provided with meals, the number of meals varying from one to three either according to the nature of work done or other peculiarities. It is noticeable that in addition to meals some labourers are also given tea (once) and bidi or tobacco worth Re. 0-1-0 to Re. 0-1-6.

These facilities seem to have been restricted normally to male labour though in certain places like Dediapada, Sagbara or Jambusar, it is not difficult to find even women labourers being provided with one meal. It would appear from the data available that generally boys are not engaged in most of the above talukas but when they are engaged they do not seem to be given all the above facilities.

A male labourer gets about 50 per cent more than a female labourer and a female labourer gets 50 per cent more than a boy labourer. This is of course due to the difference in physical ability, the nature of work entrusted, and a daily output.

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TABLE No. 37

The following statement shows the rates of pa'ment of wages according to the type of labour:—

Statement showing rates of wages according to type of labour in Broach District

Sr. No.	Name of Taluka or Mahal	Type of labour	Daily wage rate during 1949-50 Rs. As. Ps.	1950-51 Rs. As. Ps.	1951-52 Rs.As.Ps.	1952-53 Rs.As.Ps.	Food, tea, tobacco for smoking, etc. supplied to labourers.
1	Broach	Man	1-0 -0	1- 0-0	1- 0-0	1- 0-0	Tobacco is given for smoking for certain operations, two mealswith on: Nasta (Breakfast) and tea is given once.
		Woman	0-12-0	0-12-0	0-12-0	0-12-0	—
		Boy	0- 8-0	0-8-0	0- 8-0	0- 8-0	—
2	Amod	Man	1- 0-0	1- 0-0	1- 0-0	1-0 -0	Meals thrice, tea once, *bidi* worth Re. 0-1-0.
		Woman	0-12-0	0-12-0	0-12-0	0-12-0	Nil.
		Boy	0- 8-0	0- 8-0	0- 8-0	0- 8-0	—
3	Vagra*	Man	1- 0-0	1- 0-0	1- 0-0	1- 0-0	Meals thrice tea once, *bidi* worth Re. 0-1-0.
		Woman	0-12-0	0-12-0	0-12-0	0-12-0	—
		Boy	Generrally	not engaged;	whenever	engaged, are	paid the same charges as women.
4	Ankleshwar*	Man	0-12-0	0-12-0	0-12-0	0-12-0	Two meals, *bidi* worth Re. 0-1-0, tea once.
		Woman	0-10-0	0-10-0	0-10-0	0-10-0	—
		Boy	Generally	not engaged;	whenever	engaged are	paid the same charges as women.
5	Hansot*	Man	1- 0-0	1- 0-0	1- 0-0	1- 0-0	Meals twice, tea once and *bidi* worth Re. 0-1-0.
		Woman	0-10-0	0-10-0	0-10-0	0-10-0	—
		Boy	Generally	not engaged;	whenever	engaged are	paid same wages as to women.
6	Jhagadia ...	Man	1- 0-0	1- 4-0	1- 4-0	1- 4-0	Meals one to two times and tea once as per Nature of labour.
7 8	Valia Nandod	Woman	0-10-0	0-12-0	0-12-0	0-10-0	Tobacco worth 1 to 1½ annas given and tea once.
		Boy	0- 6-0	0- 8-0	0- 8-0	0- 6-0	Do.
9	Dediapada	Man	1- 0-0	1- 4-0	1- 4-0	1- 4-0	Meals once or twice sometimes as per nature of labour.
10	Sagbara	Woman	0-10-0	0-12-0	0-12-0	0-10-0	Tea once and tobacco worth annas 1 and 1½.
		Boy	0- 6-0	0- 8-0	0- 8-0	0- 6-0	Nil.
11	Jambusar * ...	Man	1- 0-0	1- 0-0	1- 0-0	1- 0-0	Once food, tobacco twice, tea worth Re. 0-1-0.
		Woman	0 -8-0	0- 8-0	0- 8-0	0- 8-0	Once food, *bidi* and dal each worth Re. 0-1-0.
		Boy	Generally	not engaged;	whenever	engaged are	paid the same charges as to women.

* There has been no change in the wages in these talukas during 1949-50 to 1952-53.

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Variations in the daily rates of wages.

In very recent times wages have varied from Re. 1-0-0. to Rs. 1-4-0 in case of man labour in almost all the talukas except in case of Ankleshwar. In Ankleshwar taluka, the wage rate reported is Re. 0-12-0 only for all the four years under consideration. In case of female labourers, the daily wage rate has varied from Re. 0-8-0 to Re. 0-12-0, while in case of boys the variation is from Re. 0-6-0 to Re. 0-8-0 during the years for which the data has been compiled in the table above.

A comparison of the pre-war rates with post-war rates shows that post-war rates have increased by nearly four times. The pre-war wages were just no more than four annas for a male labourer compared to Re. 1-0-0 to Rs. 1-4-0 in the subsequent period. It must not be presumed however that cash wages everywhere or even at any one place have been rising continuously year after year. In fact in many areas, like Jambusar taluka for example, there has been no change in the wage rate since 1949-50.

Payment of wages according to the nature of operations.

The labourers engaged in operating implements, harvesting crops, and threshing out grains get decidedly higher wages than those engaged in other farm operations such as weeding, watering, etc.

It is observed that the wages vary not only according to the type of labour (i.e. man, woman and boy) but also according to the nature of operations. If we take into consideration all the operations described in the table below i.e. operating implements, harvesting cereals, and threshing out grains, the daily cash rates of wages varied from annas twelve to Rs. 1-4-0 with also varying facilities such as two to three meals, a cup of tea and some tobacco for smoking.

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TABLE No. 38

Statement showing the rates of Wages according to the nature of operations in Broach District.

Taluka or Mahal	Nature of operations	Payment in cash or kind during				Other facilities provided
		1949-50	1950-51	1951-52	1952-53	
		Rs. As. Ps.	Rs. As. Ps.	Rs. As. Ps.	Rs. As. Ps.	
1 Broach	Operating implements	1- 0 -0	1- 4-0	1-4 -0	1- 4-0	Two full meals, tea once and tobacco once.
	Harvesting cereals	0-12 -0	0-12-0	0-12-0	0-12-0	Only Tobacco
	Threshing out grains	0-12 -0	0-12-0	0-12-0	0-12-0	Only Tobacco
2 Amod	Operating implements	1- 0 -0	1- 0-0	1- 0-0	1- 0-0	Three meals, tea once and *Bidi* worth anna one only.
	Harvesting cereals	10 lbs. of	grain per	labourer		
	Threshing out grains	10 lbs. of	grain per	labourer.		
3 Vagra	Operating implements	1- 0-0	1- 0-0	1- 0-0	1- 0-0	Three meals, tea once and *bidi* worth anna one only
	Harvesting cereals	15 to 20 lbs.	grains per	labourer		
	Threshting of grains		Do.			
4 Ankleshwar	Operating implements	0-12-0	0-12-0	0-12-0	0-12-0	Meals two, tea once and *bidi* worth anna one only.
	Harvesting cereals	0-10-0	0-10-0	0-10-0	0-10-0	Nil.
	Threshing out grains	10 lbs. of	grain per	labourer		Nil.
5 Hasnot	Operating implements	1- 0-0	1- 0-0	1- 0-0	1- 0-0	Meals twice, tea once and *bidi* worth anna one only
	Harvesitng cereals	0-10-0	0-10-0	0-10-0	0-10-0	Nil.
	Threshing out grains	10 lbs. of	good grain	to each labourer		Nil.

6 Jhagadia, Valia	Operating implements	1- 0-0	1- 4-0	1- 0-0	1- 4-0	Two meals and tobacco once (Re. 1-1-6 per seer)
	Harvesting cereals	1- 0-0	1- 2-0 OR 8 to 10 lbs of grain per labourer	1- 0-0	1- 4-0	Only tobacco given and sometimes tea also.
7 Nandod	Threshing out grains	1- 4-0	1- 0-0 OR 8 to 10 lbs. of grain per labourer	0-12-0	1- 0-0	
9 Dediapada	Operating implements	1- 0- 0	1- 4-0	1- 0-0	1- 4 -0	Two meals, tobacco once (which costs Re. 1-1-6 per seer.).
	Harvesting cereals	1- 0- 0	1- 2-0 OR 8 to 10 labs. of grain per labourer.	1- 0-0	1- 4 -0	Tobacco and at times tea (Tobacco worth 1–to 1¼ annas).
10 Sagbara	Threshing out grains	1- 4- 0	1 -0-0 8 to 10 lbs. of grain per labourer.	0-12-0	1- 0- 0	Do.
11 Jambusar	Operating implements	1- 0-0	1- 0-0	1- 0-0	1- 0- 0	Meal once, tea twice, and tobacco worth anna one only.
	Harvesting cereals	0- 8-0	0- 8-0 OR 8 to 10 lbs. of grain per labourer.	0- 8-0	0- 8- 0	Grains are given generally for threshing operation, while cash money is given for harvesting.
	Threshing out grains	0- 8-0	0 -8-0 10 lbs. of grain per labourer.	0- 8-0	0- 8- 0	Do.

(*N. B.*—There is no change in the wages either rise or fall from 1949-50 to 1952-53).

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Wages seem to vary according to the intensity of work. This is clear from the fact that rates of daily wages for harvesting cereals and threshing out grains are lower than those for operating implements. Labourers "Operating Implements" get facilities such as one to three meals, a cup of tea, and bidis worth Re. 0-1-0 only. Generally speaking similar facilities are not given to labourers engaged in other agricultural operations.

Payment in cash or kind.

The normal system of payment of wages according to the nature of operations for the talukas in Broach district had been that of payment in cash. But in most of the talukas of this district payment in kind instead of cash to the extent of 10 to 20 pounds per day per labourer was given for operations like harvesting cereals or threshing out grains. This might be more convenient to the employees particularly when the immediate cash for the sake of payment is not readily available. This also checks perhaps the tendency on the part of labourers to rob some portion of the grain during harvesting periods.

Payment to Saldars (annual servants).

The cultivators in this district appear to be better off than those in Poona and Dharwar district and prefer to act as managers of farms and engage a larger number of permanent servants on their farms. The Saldars are bound by contract to do all types of work. In exceptional cases experienced and capable Saldars help the owners in the arrangement of farm work.

TABLE No. 39

Statement showing rates of payment of wages to Saldars (Annual Servants) in Broach District.

Sr. No.	Name of Taluka or Mahal.	Annual cash payment during				Other facilities provided to the Saldar			
		1949-50	1950-51	1951-52	1952-53	Daily			Annually
						Meals	Tea	Smoking	
		Rs.	Rs.	Rs.	Rs.				
1	Broach ...	150-0-0	150-0-0	175-0-0	175-0-0	3	Twice	Tobacco	2 shirts, 2 dhotis, a pair of shoes and a *Fetta* (Head gear).
2	Amod ...	200-0-0	200-0-0	200-0-0	200-0-0	3	Twice	*Bidi* worth Re. 0-1-0	20 yards of cloth and a pair of shoes
3	Vagra ...	200-0-0	200-0-0	200-0-0	200-0-0	3	Twice	Do.	18 to 20 yards of cloth, and a pair shoes.
4	Ankleshwar	150 to 200	150 to 200	150 to 200	150 to 200	3	Once	Do.	10 to 15 yards of cloth, one pair of Dhoti and one pair of shoes.
5	Hansot ...	150-0-0	150-0-0	150-0-0	150-0-0	3	Twice	Do.	15 to 20 yards of cloth and one pair of shoes.
6 7	Jhagadia Valia }	200-0-0	210-0-0	225-0-0	230-0-0	2	Once and one *Nasta*	Tobacco	One pair of shoes, one pair of shirts, one pair of dhoties and a *fetta* (head gear).
8 9 10	Nandod Dediapada and Sagbara }	200-0-0	210-0-0	225-0-0	230-0-0	3 (includes one *Nasta*)	Twice	*Bidi*	One pair of shoes, one pair of shirts one pair of dhoties, and a *fetta* (head gear)
11	Jambusar ...	150-0-0 to 200-0-0	150-0-0 to 200-0-0	150-0-0 to 200-0-0	150-0-0 to 200-0-0	2	Twice	Tobacco Worth 0-1-0	10-15 yards of cloth (coarse), one pair of dhoti and one pair of shoes

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The following observations can be made as regards payment to Saldars in selected talukas of this district given in Table 39.

The system of payment to saldars existed in all the talukas of this district. Payment of saldars includes provision of certain facilities in addition to a fixed annual amount as shown below. Saldars receive better treatment as compared to other daily wage earners and practically they are treated as members of the family. The amount of annual payment varies from taluka to taluka and the average amount comes to Rs. 150 to Rs. 230 or about Rs. 12 to Rs. 19 if calculated on monthly basis. Other facilities given to them may be as follows: —

(a) The daily facilities include provision of two to three meals, or two meals and one *nasta* (breakfast) tea once or twice, and some amount of tobacco or bidi worth about an anna.

(b) The annual provision includes a headgear, a pair of shirts, a pair of *dhoties* and a pair of shoes.

In certain talukas of this district, for example in Vagra, Ankleshwar, Hansot, and Jambusar, 10 to 20 yards of cloth (coarse) is given instead of shirts or dhoties and sometimes a bed sheed is also given.

Payment to village Artisans or village Balutas.

The village artisans (Balutedars) have still some place in the village economy, though the system of payment to balutedars in kind and use of their services by the village people is slowly disappearing. The following observations are made about the important village artisans in different talukas of the Broach district.

TABLE No. 40

Statement showing payment of wages to village artisans (Balutas) in Broach District

Sr. No.	Name of Taluka or Mahal	1. Carpenter: Nature of services rendered	Annual payment in cash or kind 1949-50	1950-51	1951-52	1952-53	2. Blaksmith: Nature of services rendered.	Annual payment in cash or kind 1949-50	1950-51	1951-52	1952-53
1	Broach	Repairing of agril. implements	80 lbs. grains	80 to 100 lbs. grains	80 to 100 lbs. grains	80 to 100 lbs. grains	Annual repairs to implements	80 to 100 lbs. grains	80 to 120 lbs. grains	80 to 120 lbs. grains	80 to 100 lbs. grains
		For Daily Repairs ...	2 to 3	smoking	and tea.						
2	Amod	Repairs to wooden implements including carts.	60 to 80 lbs. grains	60 to 80 lbs. grains	60 to 80 lbs. grains	60 to 80 lbs grains	Repairing iron parts of implements and carts *viz.* sharpening blades, shares, points etc.	60 to 80 lbs. grains	60 to 80 lbs. grains	60 to 80 lbs. grains	60 to 80 lbs. grains
3	Vagra	Do.	60 lbs. grains	60 lbs. grains	60 lbs. grains	60 lbs. grainss	Do.	60 lbs. grains	60 lbs. grains	60 lbs. grains	60 lbs. grains
4	Ankleshwar	Preparing and repairing wooden implements like ploughs, farmer's hoes, etc.	4-0-0 per day	4-0-0 per day	4-0-0 per day	3-0-0 per day (For petty repairs *viz* sharpening of blades etc. 0-8-0)	Preparing and repairing wooden implements like ploughs, farmer's hoes, etc.	3-0-0 per day	3-0-0 per day	3-0-0 per day	3-0-0 per day
5	Hansot	Repairs to wooden implements including cars.	60 lbs. grains	60 lbs. grains	60 lbs. grains	60 lbs grains	Repairing iron parts of implements (*viz*) sharpening of blades, share points etc.	60 lbs. grains	60 lbs. grains	60 lbs. grains	60 lbs. grains
6 7 8	Jhagadia Valia Nandod	Repairing of local implements	25-0-0 3-8-0 per day	30-0-0 4-0-0 per day	35-0-0 4-8-0 per day	40-0-0 4-8-0 per day	Iron Work	15-0-0 3-0-0 per day	20-0-0 3-4-0 per day	15-0-0 3-8-0 per day	20-0-0 4-0-0 per day
9 10	Dediapada and Sagbara	Do	25-0-0 3-8-0 per day	30-0-0 4-0-0 per day	35-0-0 4-8-0 per day	40-0-0 4-8-0 per day	Iron Work	15-0-0 3-0-0 per day	20-0-0 3-4-0 per day	15-0-0 3-8-0 per day	20-0-0 4-0-0 per day
11	Jambusar	Repairing wooden implements including carts	120 to 160 lbs. grains	120 to 160 lbs. grains	120 to 160 lbs. grains	120 to 160 lbs. grains.	Repairing iron parts of the implements and carts	120 to 160 lbs. grains	120 to 160 lbs grains	120 to 160 lbs. grains	120 to 160 lbs. grains

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TABLE No. 40—(contd.)

Sr. No.	Name of Taluka or Mahal	(3) Cobbler: Nature of services rendered	Annually payment in cash or kind: 1949-50	1950-51	1951-52	1952-53	(4) Barber: Nature of services rendered	Annual payment in cash or kind: 1949-50	1950-51	1951-52	1952-53
1	Broach	Preparing ropes for mhos	20 lbs. grains	20 lbs. grains	30 lbs grains	30 lbs. grains	Shaving and cutting hair	80 to 120 lbs. grains	80 to 120 lbs. grains	80 to 120 lbs. grains	80 to 120 lbs grains
2	Amod	Supplies petty leather materials (viz. Nadi, Jotra, etc. required or yoking bullocks),	60 to 80 lbs. grains	60 to 80 bs. grains	60 to 80 lbs. grains	60 to 80 lbs. grains	Shaving once or twice a week.	60 to 80 lbs. grains	60 to 80 lbs. grains	60 to 80 bs. grains	60 to 80 lbs. grains
3	Vagra	Do.	60 lbs. grains	60 lbs. grains	60 lbs. grains	60 lbs. grains	Do.	60 lbs. grains	60 lbs. grains	60 lbs grains	60 lbs. grains
4	Ankleshwar	Do.	3-0-0 per Jotra* 1-0-0 Per Nadi ‡	30-0-0 per Jotra 1-0-0 Per Nadi	3-0-0 per Jotra 1-0-0 Per Nadi	3-0-0 per Jotra 1-0-0 Per Nadi	Do.	40 to 80 lbs. grains or 15-0-0	40 to 80 lbs. grains or 15-0-0	40 to 80 lbs. grains or 15-0-0	40 to 80 lbs. grains or 15-0-0
5	Hansot	Do.	60 lbs. grains	60 lbs grains	60 lbs grains	60 lbs grains	Do.	60 lbs. grains	60 lbs. grains	60 lbs. grains	60 lbs. grains
6 7 8	Jaghadia Valia Nandod	Doing Leather Work	20-0-0	25-0-0	26-0-0	30-0-0	Shaving (at the rate of Rs. 0-6-0 per head per day. Or Rs. 6-0-0 per annum. For 3 members of the family Rs. 18-0-0).	18-0-0	18-0-0	18-0-0	18-0-0
9 10	Dediapada and Sagbara	Do.	20-0-0	25-0-0	26-0-0	30-0-0	Do.	18-0-0 0-6-0 per day	18-0-0 0-6-0 per day	18-0-0 0-6-0 per day	18-0-0 0-6-0 per day
11	Jambusar	Supplying petty leather materials required for yoking the bullocks	120 to 160 lbs. grains	120 to 160 lbs. grains	120 to 160 lbs grains	120 to 160 lbs. grains	Shaving once or twice a week.	120 to 160 lbs. grains	120 to 160 lbs. grains	120 to 160 lbs. grains	120 to 160 lbs. grains

*Jotra: A leather strap.
‡Nadi: A rope made out of leather.

TABLE No. 40 (*contd.*)

Sr. No.	Name of Taluka or Mahal.	(5) Others: Nature of services rendered	Annual payment in cash or kind: 1949-50	1950-51	1951-52	1952-53	Remarks.
1	Broach	Havi	5 lbs. grains	10 lbs. grains	10 lbs. grains	10 lbs. grains.	Chamhar is not always paid annually. He is paid on piece wage rate.
2	Amod	—	—	—	—	—	—
3	Vagra	—	—	—	—	—	The custom of giving grains to every artisan is slowly vanishing from the villages of this taluka and cash is given to each of them for services rendered by them at the rate daily wages there prevailing *i. e.* Rs. 3-0-0 to Rs. 4-0-0 per day.
4	Ankleshwar	—	—	—	—	—	—
5	Hansot	—	—	—	—	—	On auspicious occasions all the above artisans are given meals, and the barber is however paid Rs. 20-0-0 to Rs. 25-0-0 in addition to meals for the special services rendered by him on such occasions.
6	Jaghadia }	—	—	—	—	—	Some of the village artisans are also paid in cash at daily wage rates mentioned for this taluka.
7	Valia }						
8	Nandod }						
9	Dediapada and }	—	—	—	—	—	These talukas being forest areas, artisans are not usually found in the villages. The cultivators are required to go to big *Kashas* where one or two are halting for a particular period of the year.
10	Sagbara }						
11	Jambusar	—	—	—	—	—	On auspicious occasions meals are given to all artisans. The barber is also paid Rs. 20-0-0 to Rs. 25-0-0 for other services rendered on such occasions. The custom of giving grains to every artisan is slowly vanishing from the villages of this taluka and cash is given to them for the services rendered by them at the rate of their prevailing daily wages *i.e.* Rs. 3-0-0 to Rs. 4-0-0 per day.

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RURAL WAGES.
Carpenter and Blacksmith.

The carpenter and blacksmith receive annually 60 to 120 lbs. and in very rare cases upto 160 lbs. of grains (Jowar, Bajri or Wheat) for their services of preparing and repairing agricultural implements, bullock carts, etc. They are also paid in cash annually but daily payment of wages is not rare. Thus, they receive payment both in cash and in kind. When cash payment per year is made, which is a system in a few talukas like Jhagadia, Valia, Nandod, Dediapada and Sagbara, the rates vary from Rs. 25 to Rs. 40 in case of a carpenter and Rs. 15 to Rs. 20 in case of a blacksmith. When they are engaged on daily wages, the rates vary from Rs. 3-0-0 to Rs. 4-8-0 in case of the carpenter, who is normally provided with meals or other facilities. The daily wage rate in case of a blacksmith varies from Rs. 3-0-0 to Rs. 4-0-0. The daily wage here appears rather high but it must be remembered that such highly paid artisans do not get employment throughout the year.

A considerable variation is seen in the amount of grains and cash paid during the pre-war and post-war periods for these artisans. When payment was made in kind, the amount varied from 40 to 80 lbs. of grains in the pre-war period. In some talukas payment was also made in cash and this amount varied from Rs. 10 to 15 for the pre-war period.

If these figures are compared with those of the post-war period (i.e. the years 1949-50 to 1952-53), we find that payment in kind for both these artisans varies from 60 to 120 lbs. per year. Whereas the payment in cash—a system observed in some talukas only—varies from Rs. 25 to 40 in case of the carpenter and Rs. 15 to 20, in case of the blacksmith. This shows roughly, that the rates of payment in k nd or in cash have risen by one and a half times over the prewar rates.

Chamhar.

For supplying petty leather material for yoking the bullocks and for preparing ropes for mhots and similar services, the chamhar is normally paid in kind and the amount of grains (jowar, wheat, bajri, etc.) varies from 60 to 80 lbs. per year as can be seen from Table 40. For artisans like him there are no annual payments always since he can be paid per piece work. In case of Jambusar taluka, this amount varies from 120 lbs. to 160 lbs. per year. The annual payment in cash varies from Rs. 20 to Rs. 30. Both the above systems are observed in this district, though payment in kind is more popular. During the years 1938-39 and 1948-49, the chamhar was generally paid 10 lbs. to 20 lbs. per annum, but in certain talukas he was also paid in cash varying from Rs. 5 to Rs. 10 per year.

Barbar.

The barber received normally grains (jowar, wheat, rice etc.) varying from 40 to 80 lbs. per adult member of the family. In talukas like Broach and Jambusar, this amount varies from 80 lbs. to 120 lbs. per annum.

Others.

Harijans, Raveries, Havi and others are included in this category. They are useful for work like the removal of the dead bodies, entertaining village folks, and work in religious functions, respectively.

The quantity of grain given varies from 5 to 10 lbs. annually in case of Havis. CHAPTER 5.

Agriculture. RURAL WAGES. General Remarks.

In some talukas the practice of giving grains to artisans is slowly disappearing from the villages and cash is given to them for services rendered by them at the daily rate of Rs. 3-0-0 to Rs. 4-0-0. This is particularly seen in talukas like Jambusar, Amod, and Vagra. It is quite likely that other talukas may do the same in future. Normally all the village artisans (Balutedars) are given meals on auspicious occasions. The village barber however is paid in addition to this Rs. 20 to Rs. 25 in view of the special considerations.

In certain talukas like Dediapada and Sagbara of Broach district it is observed that in small villages in forest areas, there are no village artisans. If any work is required to be done from such artisans, the villagers of these villages have to go to big 'Kashas' where one or two artisans may be staying only for a particular period of the year.

FIBRES

Broach district, with an assured rainfall and four big rivers either passing through or bordering it, is less susceptible to famines and failure of crops. Compared to some other districts of the State, there have occured fewer famines in this district during the last century. Some of the more important ones are described in the following pages.

1630-31

The years 1630 and 1631 are said to have been seasons of famine, in which large remissions were granted and supplies of grain distributed in charity by the Musalman rulers. In 1755 owing to failure of crops half the land revenue had to be remitted throughout almost the whole district. 1760-61, 1773, 1786-87 were years in which one or more parts of the district verged upon famine and the revenue had to be very largely remitted. The great famine of 1790, locally known as the 'forty-seven', *sudtalo,* because it took place in the Samvat year 1847, was caused by the entire failure of the ordinary rainfall. This famine lasted for one year. During the distress which was very great, numbers of people dying of hunger, the Majmudars, Lallubhai and Asharam, who had large quantities of grain stored in their warehouses, distributed it in charity to the poor. Since the beginnig of the present century six years of scarcity, amounting almost to famine are recorded. Of these, one in 1812, locally known as the 'sixty-nine' famine, from having happened in the Samvat year 1869, was caused by a visi tation of locusts which driven out of Marwar by the failure of the rains of 1811, spread over Kathiawar and northern Gujarat. The district of Broach would seem to have been the limit of their progress southwards. During the time of this famine strict orders are said to have been issued to the Wanias, forbidding them to sell more grain to the people than was actually required to maintain life. The sales of grain were superintended by government officers. Many deaths are reported to have occurred, but the victims of the famine would seem to have been immigrants from northern Gujarat. Of the regular inhabitants of the district comparatively few are said to have perished.

1755. 1760-61. 1773. 1786-87. 1790. 1812.

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Agriculture.

FAMINES.

1835. 1838. 1840. 1868.

In 1819 two heavy rainy seasons, succeeding each other, destroyed the major portion of the crops. But though distress was general, few, if any, lives are said to have been lost. In 1835 the cold, following on a season of excessive rain-fall, was so severe that the crops were destroyed and the country reduced to a state of distress bordering on famine. The failure of rain in 1838, 1840, and 1868, was serious enough to force the cultivators to drive their cattle to graze in the hills, and many villages were for the time deserted. Years of partial drought have been numerous.

1899-1900. As in other parts of the State, Broach district also faced a famine in the year 1899-1900 of unprecedented severity. It was caused by the scantiness of both early and late rains. In the *kharif* tracts the rainfall in June was sufficient for the showing of early crops but in July and August it was so light that the young crop withered and there was not enough rain in September to save them; in the Rabi areas sufficient rain fell in September to save them; in the Rabi harvest but there was no useful rain later and crops which with a few additional showers or even heavy dews would have been excellent withered before coming to ear. The whole of the district was affected and the distress began to be felt early in August and test works were started wherever necessary under the supervision of the District Local Board. By the end of October, regular relief works became necessary and were opened at several places. The relief workers were mainly engaged on irrigation tanks, drainage channels, railway embankments, road construction and metal breaking. Government also advanced tagavi for agricultural improvements and for the purchase of seed and cattle. The scarcity of fodder occasioned a great loss of cattle.

The season of 1900, although not so disastrous as the preceding one, was far from satisfactory. Owing to the late break of the monsoon and the failure of the late rains, the yield of *kharif* crops was poor and the *rabi* crops were more or less completely lost. The import of cheap grain from other parts of India in which the season had proved more favourable kept prices much lower than they were in the previous year. But it was found necessary to continue relief measures on a reduced scale in this district as in other parts of the State. There was no scarcity of fodder and no special measures were required for the preservation of agricultural cattle.

1901-02 With a light and intermittent monsoon, the season of 1901 presented a close resemblance to that of 1900. Breaking late in July, the early rains were only barely sufficient for the *kharif* crops while the winter rains failed almost entirely. The situation was aggravated by an unprecedented plague of rats and locusts which caused considerable damage. The import of cheap grain from other parts of India kept prices low. Relief measures were continued in this year also.

1915-16 The season of 1915-16 was not so good in this district. The rainfall during June to August was very scanty with the result that the

kharif sowing fared very badly. However, the rains in September-October were somewhat favourable. They saved a severe fodder famine and gave an impetus to rabi sowings but the absence of subsequent rains and occurrence of severe frost and cold in places almost completely marred prospects. As a result of the conditions described above, both the *kharif* and *rabi* crops yielded an insignificant outturn of crops.

CHAPTER 5.

Agriculture.

FAMINES.

The Broach district, like other parts of the State, suffered a bad season in 1918-19 which was one of the most disastrous on record from the point of view of agricultural production. Drought was general and occurred in each season. The rainfall was insufficient. The main feature of the year was the very early opening of the monsoon followed by abrupt breaks in the rains and their final close much before the proper time. This coupled with the occurrence of the influenza epidemic at the harvest time of the early crops and the sowing time of the late crops led to a general reduction in area, failure of growth and scanty outturn almost in every case resulting in the declaration of famine.

1948-49.

The district suffered one of the severest famines in the year 1948-49 because of inadequate rains. The monsoon broke about the middle of June enabling timely sowing of the *kharif* crops; but because of the cessation of rains during the last week of June and in early July, the germination of seed was retarded. Rains during July were thoroughly inadequate for the *kharif* crops. Thre was not sufficient rain in August and the hopes of late rains during September and October also proved deceptive. Throughout the season, rains were extremely irregular and ill-distributed. As a result of this, the *kharif* crops yielded nothing while *rabi* crops failed to thrive. Distress prevailed over the entire district. The whole of Jambusar taluka and Amod mahal were severely affected, while talukas of Broach, Vagra and Ankleshwar and Hansot mahal were partly affected. Distress affected a population of 2,15,666 in 300 villages covering an area of 1,151 sq. miles. The classes most affected were naturally the cultivators and agricultural labourers. In the worst affected areas, there was extreme dearth of fodder also.

The distress was first noticeable in the month of August and immediate steps were undertaken to combat the situation. A number of test works were opened in Jambusar and Amod and later on in Vagra and Hansot also. But the situation further worsened and scarcity was first declared in the month of October in Jambusar taluka and Amod mahal and later on in December it was extended to Broach, Vagra, Ankleshwar and Hansot sub-divisions. Regular relief works were accordingly started at the respective places from the date of the declaration of scarcity.

For providing employment to able-bodied labourers, relief works were opened in which water supply works figured prominently. Construction of wells, channels and tanks was started and when the number of labourers increased construction of roads and bunds was

CHAPTER 5. Agriculture. FAMINES.

also undertaken. The number of persons on relief works in July 1948 at the time of their commencement was 5,029. The attendance went on increasing steadily and the maximum was reached in the month of April 1949 when it was 5,86,446. With the advent of the next monsoon, the number fell down very rapidly and all the relief works were closed in August 1949. During this period, 14 roads, 175 tanks, 41 wells, 6 bunds and 2 channels were constructed. Gratuitous relief by way of cash doles was distributed to destitutes as well as to those inferior village servants who were required to remain at the villages for the performances of their duties. No poor houses or village kitchens were opened and no relief was distributed in towns; 3,062 men 3,677 women and 10,834 children were provided with doles. An amount of Rs. 84,99,013 was distributed in the district by way of *tagavi* loans and other advances for agricultural development, seed, cattle, and for digging new wells. Persons falling in the category of middle classes were provided with some employment in village industries such as spinning and weaving and 500 families in the district were provided relief in this manner.

For ameliorating the conditions of cattle, all available grazing grounds were thrown open for free grazing, migration of cattle to neighbouring districts was encouraged, green grass, fodder and hay were supplied through 15 depots by government and special loans were sanctioned by government for purchase of livestock.

1951-52

Scarcity was declared in Broach District in 1951-52 owing to unsatisfactory character of the season resulting in shortage of food and fodder. It affected a population of 99,657 in 162 villages covering an area of about 563 square miles.

To make the impact of the distress less severe, assistance to the local population was rendered in different forms. Construction of roads, road repairs etc. were undertaken and about Rs. 24,46,000 were spent thereon. Gratuitous relief in cash (to the tune of Rs. 1,02,985) was granted to blind and invalid persons. Rs. 29,010 were spent on Transit Cattle Camps which were opened for the cattle of Mehsana and Kaira districts going to the Satpudas through this district. Grass operations for cattle cost Rs. 3,62,478. Indirect reliefs were also granted in the form of remission of land revenue (amounting to Rs. 3,609) and *tagavi* loans (amounting to Rs. 30,64,956) for purchasing bullocks, oil engines etc.

All these relief measures proved of great help to the people in getting over the critical period of the scarcity. The arrangements for affording relief were quite satisfactory and the entire situation passed of peacefully. No disease or epidemic or starvation death was reported.

CHAPTER 6—INDUSTRIES, LARGE AND SMALL.

INTRODUCTION.

CHAPTER 6.

Industries.
INTRODUCTION.

THE POPULATION ENGAGED IN various industries in the district has been estimated by the 1951 Census at 12,573 persons (11,452 men and 1,121 women). The distribution of this number is given in Economic Table No. III of the 1951 Census Report, which shows the numbers "economically active (i.e. self-supporting persons)" engaged in various "Industries and Services". The table below is extracted from the Census table and gives statistics of persons engaged in (i) "Processing and Manufacture" and (ii) "Construction and Utilities". Under the first head, "Processing and Manufacture", figures are given under three divisions, (a) Foodstuffs, Textiles, Leather and Products thereof; (b) Metals, Chemicals and Products thereof; (c) Processing and Manufacture—not elsewhere specified. These classes are further sub-divided into groups of industries, and figures against these sub-divisions are given under three heads viz., (a) employers; (b) employees; (c) independent workers, with "male" and "female" as sub-heads under each. The head "Construction and Utilities" is sub-divided only into groups of industries and the arrangement of figures for this follows the pattern adopted for "Processing and Manufacture"

PROCESSING AND MANUFACTURE.

TABLE No. 1

Broach District:— Numbers of Economically Active (i. e. Self-Supporting) Persons Engaged in Industries under " Processing and Manufacturing " And Utilities' in 1951.

Classification of Industries.	Total.		Employers.		Employeers.		Independent workers.	
	Male	Female	Male	Female	Male	Female	Male	Female
(i) PROCESSING AND MANUFACTURE								
(a) Food-stuffs, Textiles Leather and Products thereof.	6,651	765	203	9	3,361	487	3,087	269
(1) Food industries otherwise Unclassified.	162	1	1	—	43	—	118	1
2) Grains and Pulses ...	360	22	66	—	181	4	113	18

Classification of Industries.	Total.		Employers.		Employees.		Independent workers.	
	Male	Female	Male	Female	Male	Female	Male	Female
(3) Vegetable oil and dairy products	238	26	5	—	43	7	190	19
(4) Sugar Industries	6	—	—	—	2	—	4	—
(5) Beverages	51	—	6	—	36	—		1
(6) Tobacco	540	54	8	—	90	3	442	51
(7) Cotton Textiles	3,078	483	7	—	2,692	461	379	22
(8) Wearing apparel (except footwear and made up textile goods)	1,435	149	77	9	155	6	1,203	134
(9) Textile Industries otherwise unclassified.	88	14	3	—	54	—	31	14
(10) Leather, leather products and footwear	693	16	30	—	65	6	598	10
(b) Metals, Chemicals and Products-thereof	564	19	9	—	84	5	471	14
(1) Manufacture of metal products otherwise unclassified.	492	14	9	—	38	—	445	14
(2) Iron and Steel (basic manufacture).	3	—	—	—	3	—	—	—
(3) Non-ferrous Metals (basic) manufacture).	—	—	—	—	—	—	—	—
(4) Transport equipment	20	—	—	—	5	—	15	—
(5) Electrical machinery apparatus, appliances and supplies	2	—	—	—	—	—	2	—
(6) Machinery (other than electrical machinery) including Engineering Workshops	28	2	—	—	24	2	4	—
(7) Basic industrial chemicals fertiliser and power alcohol	—	—	—	—	—	—	—	—
(8) Medical and Pharmaceutical preparations.	—	—	—	—	—	—	—	—
(9) Manufacture of chemical products otherwise unclassified	19	3	—	—	14	3	5	—
(c) Not elsewhere specified	3264	249	65	4	284	38	2,915	207
(1) Manufacturing industries otherwise unclassified	690	71	31	4	98	16	561	51
(2) Products of petroleum and coal.	—	—	—	—	—	—	—	—
(3) Bricks, tiles and other structural clay matters.	119	60	3	—	21	20	95	40
(4) Cement pipes and other cement products.	—	—	—	—	—	—	—	—
(5) Non-metallic mineral products.	637	81	5	—	27	—	605	81
(6) Rubber products	—	—	—	—	—	—	—	—
(7) Wood and wood products other than furniture and fixtures.	1,611	29	14	—	51	2	1,546	27

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Classification of Industries	Total		Employers.		Employees.		Independent workers.	
	Male	Female	Male	Female	Male	Female	Male	Female
(8) Furniture and fixtures	—	—	—	—	—	—	—	—
(9) Paper and paper products	19	5	—	—	2	—	17	5
(10) Printing and Allied Industries.	188	3	12	—	85	—	91	3
(ii) CONSTRUCTION AND UTILITIES	973	88	—	—	324	14	649	74
(1) Construction and Maintenance of works otherwise unclassified	1	—	—	—	—	—	1	—
(2) Construction and Maintenance–Buildings.	699	81	—	—	60	12	639	69
(3) Construction and maintenance–Roads, Bridges and other Transport works	172	7	—	—	163	2	9	5
(4) Construction and maintenance–Telegraph and Telephone lines.	—	—	—	—	—	—	—	—
(5) Construction and maintenance operations–Irrigation and other Agricultura works.	58	—	—	—	58	—	—	—
(6) Works and services-Electric power and Gas Supply.	36	—	—	—	36	—	—	—
(7) Works and Services-Domestic and Industrial water supply.	—	—	—	—	—	—	—	—
(8) Sanitary Works and Services (including scavengers.	7	—	—	—	7	—	—	—
Grand Total of (i) and (ii) ...	11,452	1,121	277	13	4,053	544	7,122	564

CONSTRUCTION AND UTILITIES.

The present chapter is divided into two sections viz. (i) Large-scale Industries and (ii) Small-scale Industries. It has to be noted that the statistics given in the section relating to Large-scale industries do not include all persons employed in the industry as a whole, of whom the Census has taken count, but only those engaged in certain major units of the industry. That is, these statistics pertain to only such of the units as come under the purview of the Factories Act* and therefore do not embrace smaller establishments.

I—LARGE-SCALE INDUSTRIES

LARGE SCALE INDUSTRIES.

With a view to presenting the number of factories, the size of capital investment, employment and wages paid in these large-scale industries, a Statistical Table (No. 2) is given below. It gives a picture of the position of large-scale industries in the district.

* Before the enactment of the Factories Act, 1948, factories employing 20 or more workers and carrying on manufacture with the aid of power were registered under section 2 (j), while factories declared as such by the Provincial Government and employing 10 or more workers and carrying on Manufacture with or without the aid of power were registered under section 5(i) and (ii) of the Factories Act of 1934.

Under the new Act of 1948, factories employing 10 workers and carrying on Manufacture with the aid of power are registered under section 2 (m) (i), and all factories employing 20 or more workers without the aid of power under section 2 (m) (ii).

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LARGE SCALE INDUSTRIES.

TABLE No. 2

Capital Investment, Employment and Wages paid in Large Scale Industries in Broach District

Sr. No.	Name of the Industry	Number of factories engaged in it.	Fixed capital Invested	Working Capital	Total Number of Workers employed		Wages paid (Annual)	Persons other than workers employed	Salaries paid (Annual)
					Male	Female			
1	2	3	4	5	6	7		9	10
			Rs.	Rs.			Rs.		Rs.
1	Cotton Ginning and Pressing	57	57,00,000	1,50,00,000	2,700	2,000	5,00,000	500	2,20,000
2	Cotton Textile Mills	1	42,00,000	38,00,000	1,967	137	25,98,502	18	76,022
3	Handloom Factories	14	2,40,000	3,00,000	500	Nil	2,50,000	—*	—*
4	Oil Milling	3	5,00,000	3,00,000	45	Nil	9,000‡	6	6,000
5	Leather Washers and Belting Manufacture	2	21,000	1,30,000	32	32	20,000	4	5,000
6	General Engineering (Textile Machinery spare Parts)	1	22,000	30,000	16	Nil	16,000	5	6,000
7	Catechu Manufacturing (Chemical)	1	4,75,000	3,61,000	163	2	77,587	45	64,847
8	Electricity Generation	2	13,06,303	1,17,701†	62	Nil	62,767	21	37,075
9	Stone Quarrying	2	1,20,000	25,000	8	16	5,400	10	8,240

* Supervised by the owners

‡ The wage bill depends on the number of days worked. This figure for "oil milling" is for working of 120 days.

† This figure relates to the power house at Broach City

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LARGE SCALE INDUSTRIES.

General.

It is evident from the table that Cotton Ginning and Pressing is certainly the biggest industry in the district. With a total investment of more than two crores of rupees, the industry is providing employment to about 5,000 persons. Next to this, is the cotton textile industry. Though at present there is only one textile mill working in the district, it should be recalled that during 1950, as many as three textile mills were functioning in Broach, two of which subsequently closed down due to various reasons. The development of these two large industries is explained mainly by the huge quantity of cotton that the district produces. In 1951-52, the production of cotton was estimated at 51,770 bales.

No other large-scale industry in the district is comparable in size, in employment provided, or in the capital invested, to either of the above mentioned industries.

The existence of these two large industries itself has stimulated the growth of subsidiary industries. The factory which manufactures washers required for ginning factories and the factory which is engaged in the production of textile machinery spare parts, are instances in point.

Khair trees are found abudantly in the Rajpipla forests and this has given rise to the only industry of its kind in the whole of Bombay State, viz., the manufacture of catechu *(Katho)* from the bark of these trees. Similarly, the production of a considerable quantity of oil-seeds in the district accounts for the springing up of three oil-mills.

Industry.

Another noteworthy feature is the novel organisation of handloom industry at Ankleshwar. Indigenous handloom weaving, it is needless to emphasize, is a family occupation usually carried on in the houses of the weavers ; and, in fact, this is the fundamental characteristic of indigenous weavers. But in Ankleshwar, the industry is organised on a "factory-basis", the owners employing weavers on a wage basis. These weavers, therefore, are reduced to, more or less, the status of labourers and industry, instead of being scattered over many houses of the weavers, is centred in a factory.

These and other large-scale industries are described individually in the following pages of the Chapter.

Extinct Mills.

Before describing the existing industries, it is necessary to mention also the extinct industries. That two of the three texile mills have closed down has already been stated. Similarly, a factory engaged in dyeing and printing of cloth which was started in 1943, was closed down in 1952. The reason for the closure is said to be the losses it had to incur. The *dal* mill, started in 1930, was engaged in the splitting of pulses. It used to manufacture about 25,000 bags of *dal* (split pulses), from 40,000 bags of unsplit pulses. This had also to be closed down. The industries, thus extinct, may sometimes serve as guides to further explorations of new industries in the district.

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Cotton Ginning and Pressing.

Broach district has a considerable cotton-growing area and that naturally has facilitated the development of cotton ginning and pressing industry in the district.

The last Gazetteer mentioned that the most important branch of Broach trade was its export of cotton and further that the preparation of this cotton for the market furnished employment to a large amount of capital and to considerable body of labour.* In 1874, there were six pressing-houses, with a total of ten full-presses and 23 ginning factories, with 1,264 gins. The Gazetteer also mentioned that the growth of cotton industry in general had been rapid in view of the fact that all these factories were established only during the period of 15 years, i.e., from 1861 to 1875.

The total number of factories rose to 44 in 1939 and to 46 in 1944. At present (1954) there are 57 factories. Jambusar, Palej, Ankleshwar and Broach are the important centres of this industry, having 10, 10, 7 and 6 factories respectively.

Generally, ginning and pressing are carried on in separate factories and the total number of ginning factories is about three times that of pressing factories. Ginning and Pressing are seasonal industries which start operations after the cotton harvest in January and work till the end of May. Moist climate is not suited to the ginning of cotton and hence ginning cannot be carried on during monsoon.

Cotton brought from different places is first mixed, so as to make it of a uniform variety, and then it is ginned by ginning machines or "charkhas" as they are locally known. Every ginning factory possesses about 30 to 40 such machines. The seeds separated from the cotton are collected in a godown. Then this cotton is pressed into bales of 400 lbs. each, by hydraulic presses in the pressing factories.

In 1954, the industry had a fixed capital of Rs. 57 lakhs and a working capital of 1½ crores of rupees.

The industry employs† about 1700 workers during the working season. Out of this about 2,000 are women. As the manufacturing process is simple, highly skilled labour is not required. However, skilled workers like engineers, boiler-attendants, valve-men, oil-men, roll-cutters, half-pressmen are required. Unskilled workers employed include cotton-carriers, mukadams, gunny-bag cutters, etc. These workers receive wages to the extent of Rs. 5 lakhs annually. Besides these workers, there are about 500 persons on the supervisory office staff and on the technical side and they receive an amount of Rs. 2,20,000 annually as salaries. On an average, the male worker is paid wages of Rs. 1-8-0 to Rs. 2-0-0 per day and a female worker from[1] Re. 0-14-0 to Rs. 1-2-0 a day.

* Broach District Gazetteer, p. 426.

† These figures relate to the year 1950.

1. As the industry itself is seasonal, the employment of the workers is also seasonal. Even the office staff, except some important personnel like the manager, is employed for the season only.

The ginning and pressing machines are run by steam and oil engines and the annual cost of fuel comes to about Rs. 1,80,000.*

Cotton Ginning and Pressing.

It is estimated that about 1,48,000 Bhars (one Bhar=12 Bengali maunds) of cotton, valued at Rs. 6 crores, is ginned in these factories every year. The factories turn out about 1¼ lakh bales of (1 bale= 400 lbs.) pressed cotton, which is valued at about Rs. 6¾ crores. The output of cotton-seed is estimated to be about 50 per cent. of the weight of the kapas (unginned cotton) ginned.

The pressed cotton bales are sold largely to textile mills in Bombay State; but a substantial quantity is also sold to mills outside the State and some is even exported.

A distinguishing feature of this industry is that the ownership of these factories is concentrated in a few persons, who are also engaged in the business of purchasing cotton (Kapas) and selling cotton bales. There are, of course, some factories which undertake ginning and pressing work only and earn remuneration for doing that work.

Recently, some cotton cultivators in the district have formed themselves into cooperative societies with the object of conducting cotton ginning and pressing factories and also undertaking marketing of cotton.

Cotton Textile.

In ancient times (A.D. 200) cloth is mentioned as one of the chief articles of export from Broach, and in the begining of the seventeenth century, when the English and Dutch settled in Surat, it was the fame of its manufactures of cloth that led them to establish factories in Broach, records the last Gazetteer. Of course, the manufacture of cloth, of which an account is given in it, relates to the cloth produced by indigenous handloom weavers. But as everywhere else, handloom weaving in this district also was affected adversely by the establishment of power mills.

The Broach district has 4,27,238 acres of land producing cotton to the extent of 51,770 bales. This has contributed to the growth of the textile factories.

There were in 1949, three spinning and weaving mills, all of which were situated in the city of Broach. But out of them, one mill was later dismantled and another ceased to function and thus only one mill is working at present. This mill was started in 1932. The fixed capital invested in the mill is Rs. 42 lakhs and working capital Rs. 38 lakhs. The value of land and buildings is Rs. 8,70,000 and of plant and machinery Rs. 33.30,000. There are about 22,100 spindles and 652 looms installed in the mill. The mill is equipped with spinning, weaving, calendering, dyeing and printing plants.

* In this connection, it may be noted, that the old Gazetteer writes "The old native cleaner 'Charko' is no longer used. All the cotton of the district is now cleaned in steam-ginning factories by gins known as the Platt Macarthy roller-gins."

CHAPTER 6. Industries. LARGE SCALE INDUSTRIES. Cotton Textiles.

In 1952 the factory employed more than 2,000 persons, out of whom about 1,900 were men and 150 women. An amount of Rs. 25,98,502 was paid annually as wages to these workers. The supervisory staff consisted of 18 persons, who received about Rs. 76,000 annually as salaries. About Rs. 5,000 were spent by the employers on medical aid to employees.

The unskilled labourers were largely drawn from surrounding areas and only some technical staff was recruited from industrial centres like Ahmedabad and Bombay. The majority of these employees were employed on a permanent basis.

During 1952, the mill consumed 11,000 bales of cotton, worth about 58,00,000. The mill generally purchased short staple cotton of the indigenous variety.

The main source of power was coal. The mill consumed 15,403 tons of coal worth Rs. 5,39,000.

The mill manufactured all varieties of cotton fabrics of 18 and 24 counts. The total quantity of yarn produced was about 36,00,000 lbs. It manufactured 1,60,00,000 yards of cloth, which was valued at Rs. 1,12,00,000.

In the process of manufacture, cotton waste and yarn waste remain as by-products. In 1952, these by-products amounted to 6,00,000 lbs., worth about Rs. 2,70,000.

The cloth manufactured was sold in India and some quantity was exported outside the country also.

Handloom Factories.

That handloom weaving was a famous industry in Broach district in the past is evident from the account given in the last Gazetteer. The details of the handloom weaving industry as organised today on a cottage-basis are given in the section on small-scale industries.* A notable feature of this industry in this district is its organisation on a factory basis. These factories are owned by individuals mostly Banias and Ghanchees, who employ weavers on a wage basis and themselves manage the factories though in a few cases the owners also work with the employed weavers.

Such factories are concentrated in Ankleshwar. There are at present 25 establishments having 600 flyshuttle looms. Out of them 14 factories have been registered under Section 2m (ii) of the Factories Act. 1948.[1] Out of the total 600 looms, about 500 work during the busy season i.e., from January to May and only about 300 during the slack season.

The majority of the handloom factories are situated on rented premises. The total rent paid annually is estimated at Rs. 7,500.

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* See P. 352

1. i.e. factories employing 20 or more etc.

CHAPTER 8. Industries. LARGE SCALE INDUSTRIES. Handloom Factories.

The total investment in looms is nearly Rs. 2,40,000 and the working capital is about Rs. 3 lakhs.

The annual requirement of cotton of these factories is nearly 2,000 bales worth about Rs. 12 lakhs. They produce the *Athar* type of cloth, chaddars, bed-sheets and *charsas*. The value of the total production of all factories is estimated to be Rs. 15 lakhs. The following table gives the main items of products, their quantity and value.

	Product.	*Quantity*	*Value.*
			Rs.
1	Athars.	35,000 pieces	9,00,000
2	Chaddars	50,000 pairs	2,50,000
3	Bed-sheets	50,000 pieces	2,50,000
4	Bed-covers & Charsos.	10,000 pairs.	50,000

The *Athars* made at Ankleshwar are well known and are in great demand by agriculturists in Gujarat, Rajasthan, and Madhya Bharat. Besides these products, the factories manufacture all types of Khadi cloth from mill-spun yarn to meet the requirements of the rural population.

The industry employs about 800 workers, both men and women. Though the workers are employed continuously, they are paid on daily-wage-basis. There seems to be a great degree of absenteeism, in view of the fact that the average daily attendance does not exceed 500. The workers are drawn mostly from the Bhil and Muslim communities and the majority of them are illiterate. On an average, a skilled worker gets from Rs. 1-8-0 to 2-0-0 per day and an unskilled worker from Re. 0-12-0 to Rs. 1-2-0 per day.

Oil Milling.

Broach district has 12,600 acres under groundnut and the consequent availability of raw materials has facilitated the establishment of three oil mills. The mills are situated in Rajpipla, Rajuvadia in Nandod taluka and Rajapardi of the Jhagadia taluka.

It may be recalled that the Bombay Economic and Industrial Survey Committee, 1938-40, wrote in its Report — "The district as a whole has considerable area under oil-seeds and it should be possible to crush these locally and develop a vegetable oil industry".[1]

The fixed capital invested in the industry is Rs. 5 lakhs, of which land and buildings cost Rs. 2½ lakhs, and machinery accounts for an equal amount. The working capital is Rs. 3 lakhs. Each of these factories is equipped with an expeller, a filter, and a decorticating machine.

1. Vide the Committee's Report P. 18 (Broach and Panchmahals).

CHAPTER 6.

Industries.
LARGE SCALE INDUSTRIES.
Oil Milling.

The factories employ about 45 men workers. Most of them are employed on a daily wage basis and are paid, on an average, wages from Rs. 1-8-0 to Rs. 2. Only the supervisory staff is employed on a permanent basis and paid monthly salaries. While in the year 1954, the workers received Rs. 9,000 as their annual wages, six persons on the supervisory staff drew Rs. 6,000 as their salaries.

The factories crush annually about 1,100 tons of groundnut seeds, valued at Rs. 8,00,000 and produce 450 tons of ground-nut oil, valued at Rs. 6,75,000. Oil-cake is a by-product of this industry and about 650 tons of oil-cake valued at Rs. 1,35,000 is produced annually.

The oil produced by these factories is marketed in the district itself, though a small quantity is exported to Bombay. The cultivators of the district purchase the oilcake for use as manure.

Leather Industry.
Manufacture of Washers and Beltings.

There are two factories engaged in the manufacture of leather washer and beltings. Both these factories are situated in Broach town.

The existence of a large number of ginning factories in the district mainly accounts for the establishment of these factories. Washers are used in ginning factories to separate cotton seed from cotton.

At present (1954) the fixed and working capital invested in the industry amounts to Rs. 21,000, and Rs. 1,30,000 respectively.

Each factory is equipped with five sewing machines, one punching and one cutting machine. There are in addition some hand presses. All these machines are operated by the use of electricity. The annual cost of electricity consumed comes to Rs. 450 approximately.

The basic raw material required by this industry is chrome leather which is imported from the U. S. A. and Europe. The annual requirement of these factories is about 100 to 120 tons of such leather. From these chrome splits they manufacture 2,60,000 pieces of washers worth about Rs. 1,70,000 and a few thousand lbs. of beltings. The major part of the production is sold to local ginning factories. During the war, on account of the import restrictions, the industry experienced difficulty in regard to the import of chrome leather, which is said to be more durable than and superior to the local product.

Workers are employed on piece wages. For manufacturing 14 washers, a worker is paid one rupee. A 10% dearness allowance is added to this basic wage-rate. Generally. workers do the job with the aid of their family members. About 32 men and an equal number of women are engaged in the industry. Most of the workers are employed on a permanent basis and are given all the benefits of permanent workers — viz., leave with pay, maternity benefit etc. In 1954 a sum of about Rs. 20,000 was distributed as wages to these workers. Four persons are on the office staff, receiving a total annual salary of Rs. 5,000.

There is only one factory engaged in the manufacture of textile machinery, some spare parts and bobbins. It is situated in Broach town.

Established in 1943, the factory had in 1949, a fixed capital of Rs. 34,247 which went on declining to Rs. 30,835 in 1950, and to Rs. 27,560 in 1951. At present (1954) the figure stands at Rs. 22,000. An amount of about Rs. 30,000 is invested as working capital. The factory is equipped with lathes, shaping machines and drilling machines.

The principal raw materials required are iron and steel and non-ferrous metals. The following table shows the quantities and value of some of the raw materials consumed by the factory, during 1949, 1950 and 1951.

Raw Materials.	Quantity.			Value (Rs.)		
	1949	1950	1951	1949	1950	1951
Iron and Steel (in tons)	31	32	20	4,980	4,864	1,814
Brass (in cwts.)	12	—	2	954	—	2,576
Copper (in cwts.)	16	30	—	1,347	2,952	—
Miscellaneous Non-ferrous metals (in cwts.)	63	1	3	942	356	333
Total				8 223	8,172	4,723

In 1953, however, the factory consumed 17 tons of iron and steel and two tons of brass, valued at Rs. 7,100.

For fuel and power purposes, coke firewood and electricity are used. The following table gives the quantity and value of the main items consumed during three years.

Items.	Quantity.			Value (Rs.)		
	1949	1950	1951	1949	1950	1951
Coke (tons)	26	31	35	1,560	1,860	2,170
Firewood (mds.)	400	48	55	768	96	110
Electricity (k.w.h.)	8,430	10,389	8,423	395	487	394
Total				2,723	2,443	2,674

CHAPTER 6.
Industries.
LARGE SCALE INDUSTRIES.
Leather Industry.

Only men are employed in the factory. During 1949 and 1950 the factory employed 15 workers but in 1951 the figure rose to 20. The amounts of annual wages paid were Rs. 14,319, Rs. 13,173, and Rs. 17,669 during the years 1949, 1950 and 1951 respectively. In 1953, however, only 10 workers were employed and Rs. 16,000 were disbursed as wages. Five persons were on the supervisory staff and received Rs. 6,000 annually as salaries, during the same year. The factory manufactured spare parts of textile machinery worth Rs. 86,769, Rs. 54,881 and Rs. 69,845 during the years 1949, 1950 and 1951 respectively. In 1953, the value of these products stood at Rs. 67,200. These products are sold to the textile mills in Broach and Ahmedabad and some are sold also to the Public Works Department.

Catechu Manufacture.

There is only one factory engaged in the manufacture of Catechu or *katho* from *khair* wood. It was started in 1945.

There are abundant *khair* trees in the Rajpipla forests and that explains the location of the factory in Rajpipla town itself. It is important to note that this is the only concern engaged in the manufacture of catechu from khair bark in the whole of Bombay State.

At present (1954), the fixed capital invested in the factory is nearly Rs. 5,00,000 and working capital is about Rs. 3,61,000.

About 165 workers are employed by the factory and a sum of Rs. 77,000 is disbursed annually as wages. Supervisory staff number 45 and receive Rs. 65,000 annually as salaries.

The basic raw material required in this industry is *khair* wood. The cost of *khair* wood is about Rs. 2 per maund.

Khair wood is first cut into pieces and concentrated liquor is extracted from it by the process of digestion and decoction under steam. By allowing the liquor to cool and settle down catechu (*katho*) is separated. The remaining part is then concentrated and solidified into tannin which is a by-product of this industry.

Though the capacity of the factory is for treating 10 tons of wood per day, at present it treats on an average only 4 tons and manufactures 3 to 4 maunds of catechu and about 10 maunds of tannin. The variation in the output depends also upon the quality of the wood treated. The value of total annual output comes to about Rs. 4,00,000 (one maund of catechu costs Rs. 200 and one maund of tannin Rs. 35).

Electrical power to the extent of 12000 K. W. H. is consumed annually at a cost of about Rs. 3,600.

Catechu produced here is marketed throughout India. The demand is greater from north India, especially Bengal.

Tannin is used in the tanning of hides and skins. The tannin manufactured here is sold in the neighbouring districts. But often the demand is not sufficient and stocks tend to accumulate.

It is believed that this industry can expand to a considerable extent, if priority for transport of *khair* trees by railways and marketing facilities for tannin are secured.

Electricity Generation.

In Broach district, there are two power houses generating electricity, one in Broach town and the other in Rajpipla.

The power house in Broach town was established in 1921, and is owned and managed by a public limited company. The fixed capital invested is Rs. 9,19,103, of which land and building account for Rs. 45,465 and plant and machinery Rs. 8,73,638. The working capital employed is Rs. 1,17,701.

The plant consists of five oil engines of 1500 H. P. Energy is generated by these diesel generating sets and supplied to consumers for domestic lighting, street lighting and power purposes. During 1953, the factory consumed 488 tons of diesel oil, valued at Rs. 1,32,910. During the same year, the power house supplied 13,40,506 K. W. H. of electricity, getting a total revenue of Rs. 4,73,940.

About 37 workers are employed in the company. They receive an amount of about Rs. 39,878 as their annual wages. Eight persons are on the supervisory staff and they receive Rs. 23,295 as their salaries per year. The technical staff and the workers are employed on a permanent basis.

Though there is demand for electricity from the nearby places like Ankleshwar, which is six miles from Broach, it is said that due to rising cost of generation the factory has not been able to extend the supply to such places.

The power house at Rajpipla was established in 1917 by the former Rajpipla State and is now owned by the State Government and managed by the State Electricity Board. Of the total fixed capital of Rs. 3,87,200, land and buildings account for Rs. 1,58,220, and plant and machinery for Rs. 2,28,980.

Three diesel engine sets, two of 150 KW. and one of 110 KW. capacity have been installed. The electricity generated here is supplied to Rajpipla town for domestic and street lighting and also for industrial purposes. During 1953, the factory consumed 220 tons of light diesel oil, valued at Rs. 59,400 and 1,200 gallons of lubricating oil valued at Rs. 6,000. It generates about 6,86,000 units of electricity annually.

Twenty-five workers are employed by the factory. An amount of Rs. 22,889 is disbursed as their annual wages. The 13 persons on the supervisory staff receive Rs. 13,780 as their annual salary.

Stone Quarrying.

There are (1954) two factories situated at Rajpipla, engaged in stone-quarrying. Both the quarries are owned by one concern.

CHAPTER 8. — Industries. LARGE SCALE INDUSTRIES. — Stone Quarrying.

Taken together, an amount of Rs. 1,20,000 has been invested as fixed capital and Rs. 25,000 as working capital in this industry.

One factory, about which some particulars are available, was started in 1950. It employs 20 men and 33 women workers. In many of the cases the employment is seasonal.

Annually the factory turns out 1,20,000 cubic feet of metal i.e. broken stone for macademizing roads - valued at Rs. 35,000.

An amount of Rs. 5,400 is disbursed as wages to these workers annually. There are five persons on the supervisory staff and they receive Rs. 3,240 annually as salaries. Besides, there are 6 persons who are engaged in delivering the metal to the consumers and their annual salaries come to about Rs. 5,000.

Fire Works Manufacture.

There is only one factory in the district, manufacturing fire-works. It was started in 1948 and is situated in Ankleshwar. It is a seasonal factory working only during September and October, when there is demand for these fire-works in Diwali.

Statistics are not available for all the factories in the district regarding the capital employed, number of workers engaged, consumption of power, fuel and raw materials, and value of output. From available statistics it has been possible to work out totals under these heads for the following three industries (covered by the Census of Manufacturing Industries) for 1949, 1950, and 1951:—(1) Cotton Textiles, (2) Vegetable oils and (3) General and Electrical Engineering; they are given in Tables No. 3, 4, 5, 6 and 7. It should be noted that these figures do not cover all the factories in these industries, but only those registered under the Factories Act, 1948 and that too for only three of the four factories registered in 1949 and four of the five factories registered in 1950. For 1951, they cover all the factories registered which numbered only three.

TABLE No. 3

BROACH DISTRICT—CAPITAL EMPLOYED BY REGISTERED FACTORIES IN THREE SELECTED INDUSTRIES VIZ. (1 COTTON TEXTILES, (2) VEGETABLE OILS AND (3) GENERAL AND ELECTRICAL ENGINEERING 1949-51.

Year	FIXED CAPITAL				WORKING CAPITAL			
	Land and Buildings	Plant and Machinery	Other fixed Assets	Total	Stock of Raw materials and fuels	Stock of Products and by-products	Rent paid for fixed capital items taken on lease.	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1949	805,115	824,326	65,295	1,694,736	852,715	2,387,287	3,524	3,243,529
1950	804,435	843,488	45,353	1,693,276	1,393,317	1,958,289	7,902	3,359,508
1951	777,118	457,981	42,932	1,566,031	1,573,242	2,332,945	3,148	3,909 335

CHAPTER 6.

Industries.
LARGE SCALE INDUSTRIES.
Fire Works Manufacture.

TABLE No. 4

Broach District—Labour Employed and Wages and Salaries Paid by Registered Factories in Three Selected Industries (viz. (1) Vegetable Oils, (2) Cotton Textiles, and (3) General and Electrical Engineering)—1949-51.

Year	Average number of Persons employed per day		Man-hours worked.	Wages and Salaries paid
1949	*Men*:			
	(a) Employed directly by Factory	1,614	3,947,150	22,90,233
	(b) Employed through Contractors	43	1,05,992	50,735
	Women:			
	(a) Employed directly by Factory	158	3,89,312	1,49,030
	(b) Employed through Contractors	—	—	—
	Children:			
	(a) Employed directly by Factory	—	—	—
	(b) Employed through Contractors	—	—	—
	Persons other than workers	185	*—	2,15,848
	Total ...	2,000	44,42,454	27,05,846
1950	*Men*:			
	(a) Employed directly by Factory	1,533	31,95,938	21,11,952
	(b) Employed through Contractors	—	—	—
	Women:			
	(a) Employed directly by Factory	122	2,54,492	1,42,129
	(b) Employed through Contractors	—	—	—
	Children:			
	(a) Employed directly by Factory	—	—	—
	(b) Employed through Contractors	—	—	—
	Persons other than workers	151	*—	2,30,187
	Total ...	1,806	34,50,430	24,84,268
1951	*Men*:			
	(a) Employed directly by Factory	28,532	40,68,554	20,36,693
	(b) Employed through Contractors	—	—	—
	Women:			
	(a) Employed directly by Factory	124	3,00,576	—
	(b) Employed through Contractors	—	—	—
	Children:			
	(a) Employed directly by Factory	—	—	—
	(b) Employed through Contractors	—	—	—
	Persons other than workers	138	*—	2,35,861
	Totlal ...	28,794	43,69,130	22,72,554

* Figures of man-hours are not given in regard to "persons other than workers", as they are not available.

Hence the totals for Man-hours do not include the Man-hours worked by "Persons other than workers."

TABLE No. 5

Broach District—Consumption of fuel Electricity, etc., by factories in Three Selected Industries (viz., (1) Cotton Textiles, (2) Vegetable oils, and (3) General Electrical Engineering)—1949-51

QUANTITY

Year	Coal (Tons)	Coke (Tons)	Fire wood (Mds.)	Fuel oil (Gls.)	Electricity (k.w.h.)	Water (1000 Gls.)	Lubricants	
							Oils (Gls.)	Others (c.w.t.)
1949	7,163	26	1,400	6,73,714	72,674	—	3,475	9.33
1950	11,168		533	5,040	1,01,174	1	3,954	118.4
1951	13,184		55	6,393	1,49,850	—	700	141.4

VALUE (In Rupees)

Year	Coal	Coke	Fire wood	Fuel-oils	Electricity	Water Oils	Lubricants		Total Fuel etc. consumed.
							Oils	others	
1949	2,68,500	1,560	2,268	2,55,987	13,172	—	15,579	1,062	5,58,128
1950 ...	3,59,287	1,860	628	5,354	20,956	11	18,035	9,405	4,15,536
1951 ...	4,24,541	2,170	110	5,656	29,332	—	1,908	14,529	4,98,249

TABLE No. 6

Broach District Value of Raw Materials consumed by Registered Factories in Three Selected Industries (viz., (1) Cotton Textiles, (2) Vegetable Oils, and (3) General and Electrical Engineering) 1949-51

Year	Value of Raw materials consumed.	Value of work done by others	Total
	Rs.	Rs.	Rs.
1949	55,31,738	9,147	55,40,885
1950	51,93,615	1,63,249	53,56,864
1951	73,83,076	—	73,83,076

TABLE No. 7

Broach District—Value of Output by Registered Factories in Three Selected Industries (viz.,) (1) Cotton Textiles; (2) Vegetables Oils, and (3) General and Electrical Engineering) 1949-51.

Year	Value of the products and by-products	Value of work done by others	Total
	Rs.	Rs.	Rs.
1949	90,47,689	6,141	90,53,830
1950	88,17,317	5,173	88,22,490
1951	1,13,71,285	589	1,13,71,874

CHAPTER 6.

INDUSTRY.
LARGE SCALE INDUSTRIES.
Employment in Registered Factories.

The table below is presented with a view to show the variation in size of employment during and immediately after the war period.

TABLE No. 8

Broach District—Average number of Workers employed per day in Factories registered under section 2(j) and section 5(1) and (2) of the Factories Act, 1934.

Classification of Factories.	1934	1939	1944	1945	1946	1947	1948
Government and Local Fund Factories.	—	—	2,482	—	—	—	—
Textiles	2,189	2,259	3,675	3,404	3,829	4,161	4,275
Engineering	1,855	1,828	91	76	71	79	61
Minerals and Metals	—	—	—	—	—	—	—
Food, Drink and Tobacco	30	34	112	23	14	9	28
Chemicals, Dyes etc.	71	514	369	—	—	—	—
Paper andPrinting	—	9	—	—	—	—	—
Process relating to Wood, Glass and Stone.	—	320	794	—	—	—	33
Hides and skins	51	67	44	38	40	54	46
Miscellaneous	—	—	—	—	—	—	—
TOTAL	4,196	5,031	7,567	3,541	3,954	4,303	4,443

The number employed in 1948 shows a 5 per cent increase over that employed in 1934. The year of peak employment was 1944, when the number of workers rose by 80 per cent. The sudden fall in the number employed in 1945 is accounted for by another reason. Till 1945, figures are given jointly for Broach and Panchamahals, whereas after 1945 figures are given separately for the two districts. That is why 2,482 persons employed in railway workshop in 1944 included in the figures, were excluded from the figures in 1945, because the railway workshop came under the jurisdiction of Panchamahals district. Even taking this fact into consideration, 1944 does not cease to be peak employment year, though the rise may not be so perceptible.

The only group of industry which shows consistently a gradual increase in the number of persons employed is the "Textiles" (cotton spinning, weaving and other factories). Comparison of figures for 1948 and 1934, make it clear that there is an increase of more than 95 per cent.

CHAPTER 6.
Industries.
LARGE SCALE INDUSTRIES.
Employment in Registered Factories.

It should also be noted that in 1948 "Textiles" group was the biggest industry providing employment to 96 per cent of the total number. Except this no other industry seems to have expanded during or after the war.

Similarly, the sudden decline in employment in industries grouped as "Engineering" from 1828 in 1939 to 91 in 1944 is also misleading. This is explained by the fact that till 1939, railway workshop which employed 1,777 persons was included in the Engineering group of industries; but in 1944, the workshop was included in the group 'Government and Local Fund Factories', which therefore shows 2,482 persons in 1944. If this railway workshop is excluded — the figures for Engineering will be—

1934	1939	1944
—	51	91

Hence this group does not show any large variations in employment.

The sudden fall in employment in 1945 in the case of food, drink and tobacco, chemicals and dyes etc., and processes relating to Wood, Glass and Stone, is more apparent than real. The separation of Broach and Panchamahals districts alone accounts for this fall. That is explained in the following Tabel.

Industry.	1944	1945	
	Broach and Panchamahals Districts.	Broach	Panchamahals
Food, Drink and Tobacco	112	23	129
Chemicals and Dyes	369	—	432
Processes relating to Wood, Glass and Stone.	794	—	691

II—SMALL-SCALE INDUSTRIES.

Broach district has about 4,27,000 acres of land under cotton. In ancient times (A. D. 200) cloth is mentioned as one of the chief articles of export from Broach, and in the beginning of the seventeenth century, when the English and Dutch settled in Surat, it was the fame of its manufactures of cloth that led them to establish factories in Broach. About the middle of the 17th century (1660) Broach is said to have produced some of the finest fabrics produced in any part of the world, not excepting Bengal. With the advent of modern textile mills, however, this industry came to be adversely affected.

According to the Bombay Economic and Industrial Survey Committee (1938-1940), 1,262 persons were engaged in cotton spinning and weaving. But the Census of Small Scale Industries 1951, records, under Cotton Spinning and Weaving, 178 establishments, and 360 whole-time and 60 part-time workers, distributed in the rural and urban areas as shown below:

Establishments :		*Whole-time Workers :*		
		Men	*Women*	*Children*
Rural	32	62	30	5
Urban	146	113	150	-
Total....	178	175	180	5

In addition, there are in the urban area, 11 men and 49 women, who take to this industry as part-time workers. Ankleshwar, Broach, Avidha, Khanwa and Rajpipla are the important centres of weaving in this district.

According to the census of handlooms conducted by the Provincial Textile Controller, in 1946, the district had 1005 handlooms owned by 260 persons. The number of handlooms in the district in 1955 was 954. In 1946, of the total number of 1005 looms, Broach taluka had the maximum with 695 looms, followed by Ankleshwar with 295. Of the total number of 954 looms in the District, Ankleshwar taluka had 41S and Broach taluka has 258. About 76 per cent of the weavers in the district have only one loom and only 13 per cent have more than one loom.

Weaving establishments are generally owned by the family. Women do warping, drawing in, and winding of yarn and men weave. Thus the family itself supplied the labour and outside labourers are employed only when there is pressure of work. Mostly pit fly shuttle looms costing about Rs. 40 to Rs. 50 are in use. The looms are manufactured locally by carpenters. But some accessories like reeds etc. are brought from Bombay.

The weavers weave out of mill yarn. When therefore, there was shortage of yarn for weaving, Government took up the work of distribution of yarn through its agency. The approximate annual requirements of yarn for the district is about 1500 bales, valued at about Rs. 12,30,000 (1957). The counts of yarn mostly used by the weavers here are 1½s to 6s, 10s to 12s, 20s, 14s to 16s, 2/10s and 2/20s, mixed 20/30, 30/40, 36/40, 48/60.

The village weavers produce cloth of coarse counts known as "Athar or Mode" cloth required by agriculturists. In fact, in

CHAPTER 6. — Industries. SMALL SCALE INDUSTRIES. Handloom Weaving.

Ankleshwar, the production of this type of cloth predominates over all other handloom products. In Broach, where the industry is better organised, sarees of 20 to 40 counts are produced. Other important products of the industry are bed-sheets, chaddars, "Belas" or sarees worn by village women, Gadalapat or cloth for making mattresses and khadi cloth. One weaver can weave 300 yards of "Athar or Mode" type of cloth in 14 to 16 days, according to his skill. For this, he is paid wages of about Rs. 26. Thus he gets an average daily wage Rs. 1-12-0. The cost of production of one unit of "Bela" (village sarees) cloth measuring in all 38 yards, comes to about Rs. 20 of which Rs. 5 are paid as wages to the weaver. A woman weaver for example can weave 38 yards in 4 to 5 days. Thus the average daily wage will be about Re. 1.

Much of the business is done through Ankleshwar, and Broach weavers societies. They purchase yarn and supply the same to the members who are paid for the cloth they weave. These goods are mostly sold in the district and only a small portion of them is sold in other districts of Gujarat and Maharashtra. There are five weavers societies with 428 members. They have share capital of Rs. 16,383. Government are helping these weavers by granting loans and subsidies under different handloom development schemes.

Tanning.

It is reported that there are about 136 persons engaged in the tanning industry in Broach district. Ankleshwar, Kalak, Manubar, Parkhet, Sajod and Rajapipla are some of the important centres of tanning. Though there are Harijans in almost all the villages engaged in flaying hides, they do not engage themselves in tanning the hides but sell them raw and untanned. Tanners are mostly independent artisans and those who work for wages are employed generally in concerns in urban centres.

The tanner's equipment consists of tanning pits and a few simple instruments such as cutters, chisels, *aris* and wooden blocks. This equipment costing about Rs. 50 to Rs. 75 is generally owned by each artisan. The raw materials required are raw hide, *babul* bark *hirda* or *myrobalan* and lime. Raw hides and lime are available locally. *Babul* bark is imported from Kaira district. Tanners at Manubar and Kalak use *hirda* in small quantities and they purchase it from Surat. As it is costly, other tanners generally use *babal* bark instead. The whole process of tanning takes about a month. But the tanners carry on the industry in an unscientific way. Instead of allowing the hides to remain for one month in the pit for proper tanning, they hurry up the process and take out the hides within 15 to 20 days. Lack of adequate working capital is an important cause of this. As a result, the quality of the tanned hides suffers.

A family of a tanner can tan about 20 pieces of buffalo or cow hides in a month. In 1950, the cost of tanning the 20 hides was as

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Tanning.

follows :—

Cost of 20 raw hides	...	Rs. 400-0-0
Lime 1½ Bengali Maunds	...	Rs. 8-0-0
Babul bark 19 Bengali Maunds at Rs. 6 per Maund	...	Rs. 114-0-0
Hirda 3¾ Bengali Maunds	...	Rs. 20-0-0
Total	...	Rs. 542-0-0
Total wages of the family	...	Rs. 75-0-0
		Rs. 617-0-0

Thus the cost of tanning one hide in 1957 (including the cost of raw hide) is approximately Rs. 31, out of which about Rs. 4 represent wages. The monthly income of a tanner varies between Rs. 80 and Rs. 100. The market for tanned leather is mostly local. It is sold to local leather workers for making chappals, shoes etc. Some tanners are themselves leather workers. Generally tanned leather is sold direct to leather workers but sometimes merchants buy it from the tanners to sell it again in big markets. The tanners do not export any tanned hides to other districts.

Four Tanners Co-operative Societies were registered in 1950 in the district but now there is only one at Manubar. The total mem-
But as the washers made from American splits can be had at cheaper
bership of this society is 12 and its working capital is Rs. 910. Formerly washer-manufacturing firms used to buy locally-tanned hides. rates and further as the quality of these is superior to the washers manufactured out of locally tanned hides, the firms have stopped buying them. Consequently, the tanning business has been much affected.

Generally, the backward class people carry on this industry. It was reported that due to insufficiency of capital resources and inability to market their goods with profit, most of the independent artisans in the district had to join tanneries as wage-earners. Tanning is a seasonal industry, carried on generally from October to April, that is for about seven months in a year. Some workers take to this industry as a part-time business and supplement their income by employing themselves as agricultural labourers.

Shoe-Making.

The 1951 Census records 529 persons as engaged in shoe making and cobbling and another 161 persons as engaged in leather products repair. Broach, Amod, Ankleshwar, Jambusar, Rajapipla and Jhagadia are some of the important centres of the industry. There is a *chamhar* or *mochy* in almost every big village and the local needs are met by him. The business in finished products is generally slack during the rainy season, but repair work is more. The establishments are maintained by the head of the family, other members

helping in the work. Some leather workers are employed as workers in big shops and are paid wages on piece-rates.

The leather worker's equipment usually consists of *ari*, *rapi*, *tocha*, anvil, etc. and costs about Rs. 50. Fairly big establishments engaged in the manufacture of shoes generally own a sewing machine. Baffalo hides for the sole and leather and chrome leather for the upper part of the shoe are the raw materials required. Other materials necessary are nails, buttons, string and polishing material. Except the sole leather, which is available locally, other materials are imported from Bombay.

The urban workers produce footwear for men, women and children, and give finish to those produced by the village workers. The latter produce foot-wear required for the villagers and other leather products required by agriculturists.

One artisan produces one pair of shoes in a day and earns about from Rs. 2 to Rs. 2¼ in urban areas. Thus the average monthly income of an urban shoe-maker comes to about Rs. 45 to 60. The wages paid to a leather worker engaged in a shop vary from Rs. 1-8-0 to Rs. 2-4-0 per day according to the skill of the worker. Usually, wages are paid on piece-rate basis. For a pair of "pathani champal" the wages are about Rs. 1-4-0 to Rs. 1-8-0; for one pair of shoes, about Rs. 1-8-0 to Rs. 2-0-0; and for one pair of 'chapals' about Re. 0-12-0.

The average monthly income of a rural shoemaker, however, comes to about Rs. 50 to 60.

The goods are sold both in and outside the district. The village artisans sell their products during the weekly bazars.

There is one co-operative society of leather workers in Rajpipla, with a membership of 22 and a working capital of Rs. 1,423. The Society only distributes raw materials. The Society was granted a loan of Rs. 50,000 to serve as working capital.

As in the case of tanners, this industry is also affected by the increased imports of machine-made goods. It is reported that the quantity of imports amounts to about 30% of the total requirements of the district.

The general conditions of leather workers are not good. They belong generally to the backward class and are illiterate. They do not have the necessary funds to invest in their business and are generally under debt to *sawkars* (money-lenders) or middlemen.

Bamboo Working.

Broach district has considerable bamboo-growing forests and this has enabled a number of persons to engage themselves in the manufacture of bamboo products. The Bombay Economic and Industrial Survey Committee estimated that there were about 300 families of basket makers in the district in 1938-40. The 1951 Census

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Bamboo Working.

records 425 persons as engaged in basket making and in the production of brooms and mats, and manufacture of similar other woody materials. A recent estimate (1957) by the Department of Small Scale Industries places the total number of persons engaged in this industry at 630. Mostly Harijans are engaged in this industry but in areas near Rajpipla, it is carried on by Adivasis also. Rajpipla is the main centre of the industry and Broach, Ankleshwar, Jambusar, Avidha, Kavitha and Shamsherpura, are other centres. The forest department auctions forests to contractors who cut bamboos and sell them at different places.

The tools required for this industry are chisels, cutters, beads etc. Every artisan owns these tools. They manufacture baskets, palas, mats (Sadadi), winnows (supda) and cart covers (Gadana panjara). But baskets and palas are the main products. Usually Harijans engaged in the industry sell the finished products directly to the consumers, while Adiwasis sell them through the local merchants. A workman at Kavitha can prepare in a day from one bamboo three small baskets which fetch Re. 1-00. Thus if he pays 6 annas for the bamboo, he will get about 10 annas per day as his wages. The industry is declining in Ankleshwar, Broach and Jambusar, because bamboos there have become costlier. 100 bamboos cost only about Rs. 13/- in Rajpipla, whereas they cost Rs. 25 in Ankleshwar, Rs. 28 in Broach and Rs. 32 in Jambusar.

There are two co-operative societies in the district having a membership of 64 and working capital of Rs. 3,962. Both the societies do not deal with any business at present. There is a forest labourers society at Shamsherpura, which is also engaged in this industry in addition to its normal work. It has a membership of 132 and a total working capital of Rs. 5,033. To develop this industry, it is felt, that the workers should be taught to manufacture different kinds of articles, e.g. chairs, racks etc.

Brick-Making.

Brickmaking is another small-scale industry which is giving employment to a considerable number of persons. The 1951 Census records 179 persons as engaged in the manufacture of bricks, tiles and other structural products. However, this seems to be an underestimate and the number given by the Department of small industries is 1300) Broach, Jhagadia, Jambusar, Rajpipla Diwa, Ilav and Digas are some of the important centres of this industry. Brick-making is a seasonal industry which is carried on only for eight months in a year. During the four months of the rainy-season, it is impossible to carry on this work.

Good earth suitable for making bricks, sand and coal are the main raw materials required for this industry. Suitable earth is available locally. Instead of coal, artisans generally use coal-cinders, which are cheaper than charcoal and which they purchase from local mills and railway contractors.

CHAPTER 6. — Industries. SMALL SCALE INDUSTRIES. Brick-Making.

The equipment generally consists of kilns built for burning the bricks. It is usual in this district to burn bricks in Kachha bhattas (Kilns), having the following dimensions 10′×10′×10′, or 25′×25′×10′, or 50′×50′×10′. Tools for digging earth and wooden blocks for preparing bricks are other materials required. Some brick makers own the asses which are used as means of transport to bring earth to the place where bricks are laid and burnt.

The following figures give a general idea of the cost of production of 1,000 bricks :

		Rs. n.P.
Cost of moulding 1000 bricks:	...	6–00
Cost of water supply	..	2–00
Cost of sand:	..	0–50
Cost of ash spreading:	..	0–50
Cost of earth:	...	2–50
Cost of coal ash:	...	10–00
Losses of kachha bricks:	...	1–50
Total..	..	23–00

Hence the total cost of 1,000 bricks may be placed at about Rs. 23-0-0. The average rate at which 1,000 bricks are sold is about Rs. 30.

The time required to get the bricks burnt properly is about a month. Hence in a year, they generally can get the bricks burnt 4 to 6 times. Owners of kilns employ persons to lay the bricks and to do other work connected with brick-making. Generally professional potters or backward class people are employed. Wages are paid on the piece-rate system i.e., per 1,000 bricks. These workers are illiterate and poor. During rainy season, when they remain idle, they borrow money from the employers and that is repaid by working for them next year.

There are two co-operative societies of these workers one at Vilayat in Wagara taluka, with a membership of 50 and the other at Rajpipla with a membership of 25. The paid-up share capital of these two societies is Rs. 2,590. The members of Rajpipla society have manufactured 3 lakhs of bricks in this year, while the other society does not seem to be working vigorously.

Carpentry.

According to 1951 Census, 1,215 persons are engaged in carpentry. Broach, Ankleshwar, Rajpipla and Jambusar are some of the important centres of the industry. Almost every taluka place has skilled "*Suthars*" and their number is especially large in Broach Taluka. Carpenters at Broach and Ankleshwar mainly manufacture carts and sometimes carriages. Generally other articles manufactured by them are different types of furniture cradles, cots, agricultural implements etc. Some carpenters are engaged in carpentry work connected with the construction of buildings. The village carpenters manufacture and repair agricultural tools and implements. The

Carpentry.

business of carpenters is carried on throughout the year but it is slack during rainy season.

The main raw material required for making furniture is obviously timber. Carpenters in the district generally use 'bulsari sag' which is available at the rate of Rs. 12 to Rs. 18 per cubic foot. Other materials required are nails, methylated spirit, polish etc. The small carpenters generally purchase all these materials from the local merchants. Generally, carpenters are independent artisans, having their own tools and equipment. A set of tools costs about Rs. 600. But in some cases, carpenters are engaged by Karkhandars on wage-basis. When a carpenter is employed by a Karkhandar, he is paid a daily wage of about Rs. 3 to Rs. 4. About the same wage is paid to the carpenter engaged in the work connected with the construction of buildings etc. To make one chair, timber costing about Rs. 6 and nails and polishes costing about Rs. 2-4-0 are required. The wage-charges account for about Rs. 4. This chair fetches about Rs. 15 in the market. The independent carpenters have no capital to buy the raw materials. After manufacturing these articles, they find it difficult to wait till they are sold. In villages, the "buluta" system is still prevalent, and the average annual income of a village carpenter comes to about Rs. 500.

A co-operative society of carpenters is registered at Broach. This society deals with distribution of raw materials. The society purchases timber from the jungle contractors or forest labourers' societies, and sells to its members at a reasonable margin of profit. There are 29 members, and the paid-up share capital of the society is Rs. 1,240. The society is given a loan of Rs. 3,500/- through central financing agency, at 2½ per cent to serve as working capital.

Blacksmithy.

The 1951 Census gives the number of black-smiths in the district as 407. There are no well-organised smithy worshops in rural areas but individual blacksmiths known as *Lohars* with their old indigenous methods of working are found in almost every big village. In such village worshops there are usually one or two artisans and they cater to the needs of local agriculturists by manufacturing and repairing agricultural implements. The blacksmiths of Amod manufacture penknives. In Broach town proper there are four big workshops engaged in the manufacture of water pumps and spare parts of engines etc. They also do the work of repairing and moulding etc. An account of these factories is given in the first section of this chapter.

The village artisan's equipment usually consists of anvil, hammers, blowers, files, vice etc. The cost of a set varies from Rs. 500 to Rs. 1000. The artisan engaged in the manufacture of agricultural implements requires iron bars and sheets of different sizes. As the individual *Lohars* have little capital, they find it difficult to buy these meterials.

With the help of this equipment and raw meterials, the village blacksmith produces agricultural implements. His business is mainly

CHAPTER 6. Industries. Blacksmithy.

seasonal, because during the agricultural season there is great demand for these implements and also for their repairs. Thus the business is brisk for about four months. A good artisan living and working in a central village can earn a gross income of Rs. 1,000 per year. Substracting from this the cost of raw materials, he gets a net income of about Rs. 500. The *baluta* system also prevails here to a certain extent. The main difficulty of all these indigenous blacksmiths seems to be lack of capital. Many of them do not possess good equipment as a result of which their earnings are meagre.

There are three societies of blacksmiths in Broach District. The total membership of these three societies is 68 and their working capital is Rs. 3,980/-. The society at Jambusar has sold iron and steel worth Rs. 8,000/- during the year. This society was given a loan of Rs. 5,000/- to serve as working capital through Central Financing Agency. The Rajpipla society is supplying iron and steel work to its members. This society was given a loan of Rs. 20,000/- to serve as working capital. The third society is newly registered at Daheli in Valia Mahal, and it has also started supplying iron, steel and charcoal etc., to its members.

Bidi-Making.

With an increasing number of people taking to the smoking of *bidi*, bidimaking has become a fairly big small-scale industry. No machinery is used in the industry and the entire work is carried on by hand. The 1951 Census records 594 persons as engaged in this industry. Broach, Jambusar and Ankleshwar are some of the important centres of this industry. But in Broach district there are no big factories such as for example are found in Dharwar district. Bidi-shopkeepers employ some workers on their own account and supply them with tobacco, leaves and string. These workers are paid wages on piece-rate i.e., per thousand bidis. Some workers work in the shops of these Karkhandars and others work at their homes.

Different varieties of tobacco are used. Generally tobacco is obtained from Kaira district and the leaves (used for making bidis) are obtained from Madhya Pradesh, Chota Udepur etc. Different varieties of bidis are manufactured. Some of the local varieties are called *Tukda, Lavangin, Farmas* etc. According to a Karkhandar's estimate, to manufacture 1,000 bidis of a fairly good quality, 3 to 4 lbs. of leaves costing about Rs. 1-8-0 and 1 lb. of tobacco costing about Re. 1 to Rs. 1-8-0, are required. Wages paid for making 1,000 bidis vary from Rs. 2-8-0 to Rs. 2-12-0 according to the variety of the bidis. The cost of thread, labelling and packing amounts to one anna per thousand bidis. The cost of manufacturing 1,000 bidis therefore comes to about Rs. 6. The sale price of bidis also varies according to the quality of bidis. For the best quality bidis, it was about 7-8-0 to Rs. 8-0-0 in 1957 at retail prices. On an average an artisan manufacturers about 900 bidis per day, and his wage comes to about Rs. 2 per day.

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The bidis are sold locally in the district. A considerable quantity is exported outside also. Most of the workers engaged in this industry are illiterate, and have not organised themselves into any Trade Unions. But it is reported that at Jambusar there is a Union of these workers.

Coir-Making.

Though the Census of 1951 mentions that there are only 79 persons engaged in rope-making, it is estimated that there are about 300 families who have taken to this industry, some of them carrying it on as a part-time occupation. Broach is a big centre where coconuts are brought from Malabar and distributed all over Gujarat. Here the husk is removed from the coconuts and out of this husk, ropes are made. Coconuts of the value of about 75 lakhs of rupees are imported every year . Hence a large quantity of husk is available for this industry. Part of the husk, however, is used as fuel by poor people. Husk removed from 100 coconuts can be purchased at a price of eight annas only. When the husk is available in bigger lots, it can be had at a still cheaper rate.

The majority of persons engaged in this industry are fisherwomen. They beat the husk with "*Moghari*" a wooden hand beater, after drying the husk in sunshine for two days. Then it is cleaned and dipped in water for a while. Out of this wet husk, thin strings are made. Weaving these strings together, they prepare ropes. The instrument used to twist these strings is called "*Takli*". Both thin and thick ropes are made. These ropes are useful for agricultural purposes, for drawing water from wells, for packing, etc.

The industry is declining because of lack of proper training of these workers. The husk is not properly cleaned and therefore the ropes prepared are of inferior quality. Improvement in the technique may help in producing better results.

Oil-Seeds Crushing.

Due to the availability of cheap machine-crushed oil, the oil-seed crushing industry which once occupied an important place in the village economy is almost on the verge of extinction. The 1951 Census of Small-scale Industries records onlv 13 establishment in urban areas and 29 workers and 2 part-time workers engaged in crushing oil. The Ghanchis (the community mainly engaged in this industry) are found at present in Ankleshwar, Jambusar and Broach. They crush oil-seeds, especially sesamum seeds in this district, in Ghanis driven by bullocks.

The sesamum seeds are given for crushing and per 22 lbs. of seeds, the artisan is paid Re. 1/- as remuneration for crushing. Attempts are being made to put the industry on an economic basis, by introducing better types of ghanis, like Haskell for example, with higher extraction power.

Forest Industry.

The merger of the Rajpipla State in Broach district has increased considerably the forest area of the district, which is now about 2,66,232 acres. Hence it is reported that it is possible to develop in

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SMALL SCALE INDUSTRIES.

Forest Industry.

this region some small-scale industries connected with forests. The Adiwasis residing in the forest area are backward, uneducated and poor. Collection of timber from the forest area provides considerable employment to these people. The forest coupes are auctioned by Government and then contractors employ these workers on daily wages. The work consists of felling trees and cleaning the forest. The trees thus felled are later on transported for being cut into timber.

A notable feature of this work is that the forest labourers are organizing themselves into co-operative societies. At present there are eight forest labourers' societies with a membership of 1,169 and working capital of Rs. 1,97,767. Five of these societies have been allotted forest coupes in the year 1955-56. The labourers are paid Rs. 1-8-0 per day.

There is considerable scope for the development of the bee-keeping industry, especially in the forest areas.

Miscellaneous.

Broach is famous for its Sujjanis and Rajjais (quilts fitted in with cotton and very artistically made) from ancient times. But* this industry has now fallen on bad days and the number of persons engaged in it has enormously dwindled greatly. From the point of view of the extent of employment it provides, the industry can no longer be considered to be important.

Indicating the possibilities of the development of industries, the Bombay Economic and Industrial Survey Committee 1938-40, had suggested among others, the manufacture of buttons from Akik stones, starch from jowar, cigarette making and the manufacture of salt. The development of the chrome tanning industry and the manufacture of glue as a subsidiary industry was also recommended. No progress has however been made in that direction.

III—ORGANISATION OF LABOUR.

It is clear from the preceeding account that industrialisation has not progressed on a very large scale in the district. Naturally therefore, the trade union movement, which is associated with industrialisation, presents a similar picture. Although there were two trade unions registered in 1942, the number of trade unions tended to increase only after 1951.

Broach Mill Worker's Union.

Organised labour is confined to the three main towns of the district viz., Broach, Jambusar and Ankleshwar. The earliest trade union in the district registered under the Indian Trade Unions Act 1926, was the Broach Mill Workers Union, Broach, which was registered on 1st June, 1942. On 31st March, 1948, it had a membership of 1,411. The Union functioned for more than seven years but in the year 1949, its registration was cancelled for failure to submit its accounts to the Registrar as required under the Indian Trade Unions Act, 1926.

* See other occupations chapter for details of this industry.

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Trade Unions.

The oldest of the existing trade Unions, namely the Textile Labour Union, Broach, was registered on 5th April, 1945. But since that year there has been a tendency for the unions to increase in number, probably due to a great consciousness among the industrial workers to organise themselves. Upto the year 1951, there were only two unions registered. There were four unions in 1951; six in 1952; seven in 1953; and eight in 1954.

The trade union movement, again, is confined to workers engaged in cotton textiles, electricity, transport industries and municipalities.

Membership.

The total membership of the 6 trade unions registered before 1st April, 1953 was 2,152, out of whom 318 were women-members. It should be noted that not all these persons were strictly industrial workers as some of them were not employed in factories as defined by the Factories Act. Chief among such trade unions, which belonged to workers other than those employed in factories, were the unions of workers in municipalities. The distribution of unions according to industry showed that there were two unions in cotton textiles, 1 in transport, 1 in Electricity and the remaining 4 in the Municipality.

Resources.

For the year ending 31st March, 1953, the income of six out of the seven trade unions existing—about one of the information was not available—which consisted of contributions from Members, donations and income from miscellaneous sources, was Rs. 20,478. The main source of income was contributions from members which alone amounted to Rs. 18,171 i.e., nearly 89% of the total. The other two sources, donations and miscellaneous amounted to Rs. 1,786 and Rs. 521 respectively. The average income of a trade union, therefore, came to Rs. 3,413 for that year. The total expenditure of these six trade unions for the same year was Rs. 15,015, out of which Rs. 7,438 were spent on salaries and allowances of the staff and expenses of establishment. This is the first biggest item on the expenditure side. Conducting trade disputes, legal expenses and compensation constitute other important items of expenditure. The rest of the items reflect the extent of welfare activities carried out by the unions. Funeral, old age, sickness, and unemployment benefits ; educational, social and religious benefits — all these depend on the financial position of the unions. The total expenditure of Rs. 15,015 was distributed as follows: — salaries, allowances and expenses of officers, Rs. 1,559 ; salaries, allowances and expenses of establishment Rs. 5,879; auditors fees Rs. 40; legal expenses Rs. 1,604; expenditure on conducting trade disputes Rs. 1,650; compensation paid to members for loss arising out of trade disputes Rs. 33 ; funeral, oldage, sickness, unemployment benefits etc., Rs. 341; educational, social and religious benefits Rs. 2,252 ; expenses incurred under Section 15 (j) of the Indian Trade Unions Act, 1926, Rs. 798 ; and other miscellaneous expenses Rs. 859.

Assets and Resources.

For the same year, the total assets of the six unions in the district were Rs. 30,233 distributed as follows: — cash Rs. 27,570 ; unpaid

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subscriptions due Rs. 214; and miscellaneous Rs. 2,449. As against this, total liabilities amounted to Rs. 30,233 out of which the total amount to the credit of the General Fund account of the Trade Unions was Rs. 28,543 and other liabilities amounted to Rs. 1,690.

Legislation and its working.

With the passing of the Bombay Industrial Relations Act, 1946 and the Industrial Disputes Act, 1947, which were brought into force by the State of Bombay on 29th September, 1947 and 1st April, 1947 respectively, the relations between the employers and workers have been more precisely regulated than before and machinery for the the former Act and conciliation and adjudication under the latter has the former Act and conciliation and adjudication under the latter has been provided for.

Under the Bombay Industrial Relations Act, 1946, a dispute may be referred for conciliation to a conciliator by either of the parties and for arbitration to the Labour Court, the Industrial Court or the Wage Board, at the instance of a representative union which should of course, be an 'approved union', or by both the parties or by the Government from the date the Act came into force till the end of 1953. 48 cases from the district were referred to conciliation. Of these 26 cases related to proposals for retrenchment of workers, 12 related to pay, allowances and bonus, and 5 to leave and hours of work, while the remaining 5 were due to miscellaneous causes. Settlement was reached in 12 cases. While 11 cases were withdrawn by the parties concerned, no settlement could be brought about in 6 cases. Conciliation proceedings were discontinued in 19 cases, in 12 because the unions concerned referred the disputes to arbitration of the Industrial Court, Bombay, under section 73-A of the Act and in 7 because the parties preferred joint submissions under section 58(6)(a) of the Act.

Till the end of 1953, 26 cases were referred to conciliation under the Industrial Disputes Act 1947. Nineteen of these cases related to pay, allowances and bonus and the rest to employment, leave, hours of work etc., It was possible to bring about a settlement in 14 cases while no settlement could be arrived at in 3. In 6 cases conciliation proceedings were discontinued as the workers concerned resorted to strike. Three cases were still pending at the end of 1953.

The Industrial Court has fixed the minimum wages for an unskilled worker at Rs. 26 for 26 working days in a month in the case of the Gopal Mills Co. Ltd., Broach, and the Broach Fine Counts Spinning and Weaving Co. Ltd., Broach. The scheme of standardization of wages of cotton textile mills at Surat was made applicable to these textile Mills (vide Bombay Government Gazettee, part I-L, dated 12th January, 1950, pages 89-100). Workers in these mills are paid dearness allowance at the rate of 90 per cent. of the dearness allowance paid to textile workers at Ahmedabad.

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Welfare Centre.

The Government of Bombay established a Labour Welfare Centre at Broach in December, 1949. But later the control and management of this centre was transferred to a statutory body, viz., Bombay Labour Welfare Board, constituted under the Bombay Labour Welfare Fund Act of 1953.

The Welfare Centre here has both adequate buildings and a spacious open ground for carrying on indoor and outdoor activities. The Centre provided facilities for games, both Indian and foreign ; arranges entertainment programmes, maintains a small library and reading room, conducts literacy classes, sewing and embroidery classes for women etc.

A fairly large number of workers take advantage of the centre, as is revealed by the figures of attendance for various activities.

CHAPTER 7—FINANCE

INTRODUCTION.

THE PURPOSE OF THIS CHAPTER is, in the main, to provide a general description of capital and credit organisation of Broach district against the historical background given in the old Gazetteer of the district published in 1877. The scope of the chapter is limited to an analytical and, whenever possible, a comparative study of different financial agencies catering credit to the district, sources and total amount of credit available, different channels of investment of available credit and returns on different types of investment.

The general plan of the chapter may be stated as follows. To begin with will be found a short account of the main purveyors of credit in the old financial set-up, namely, village and town moneylenders and substantial indigenous bankers generally residing in towns and then of new agencies like the cooperative credit societies and banks and joint-stock commercial banks which have come into existence in comparatively recent times. Investments in Government securities and industrial shares have however not been referred to. The sections that follow describe in detail the nature and magnitude of operations of credit organisations functioning at present in the district, viz., moneylenders, cooperative societies and banks, modern joint-stock banks and Government which make advances to agriculture and to some extent to cottage and village industries. Postal savings banks and national savings schemes are also described; but these are channels for mobilising savings of the public rather than for advancing loans. Public and private limited companies have been referred to, because they indicate that public and private savings are also attracted by them for harnessing them to fruitful economic activity in the district.

AGENCIES-OLD AND NEW.

The earliest authoritative source of information about moneylending and banking business in the district in British times is probably the District Gazetteer compiled and published as far back as 1877. It records that, of the 76 persons engaged as professional bankers as enunciated in the 1872 census, 50 were bankers proper other than money-changers, and 26 were bankers and bullion-dealers. These establishments of bankers were wholly concentrated in the towns of Broach and Jambusar. The principal bankers had capital ranging between Rs. 1,00,000 and Rs. 3,00,000. They were, as a rule, professional moneylenders or cotton-dealers, *wakharia*, though some firms confined their business to banking proper and negotiating bills of exchange.

CHAPTER 7.

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Finance: Agencies-Old and New.

In 1864 the Bank of Bombay established a branch at Broach. In 1870 the Government treasury in Broach was handed over to the branch bank, and since then the whole of the Government surplus balances at Broach, and nearly the whole of the Government balance in the Surat treasury, were utilised by the bank at Broach in purchasing cotton bills. Thus the cotton-dealers could be accommodated on easier terms than before. Negotiating cotton bills was the chief business of the bank. The emergence of modern banking methods shifted the export trade in cotton as well as the financing of this trade, from the hands of the local dealers and bankers to Europeans. The present day culmination of the process is the practically complete monopoly of modern banks in this type of business.

The considerable cotton trade of Broach has necessitated since long not only financing its movement but also covering the risk inherent in the movement, especially in the days of the backward state of transport and communications. Before the introduction of railways, cotton was exported in large quantities by sea to Bombay. The insurance charges varied slightly, according to the season of the year, rising as the risk of the storm increased, towards the close of the hot-weather months. In 1850, the rates for insuring cotton were one and a quarter per cent. In 1875, the corresponding charges had greatly declined, varying from 13/32 to 21/32 per cent. in fair season, rising to 25/32 per cent. in stormy season.

Money-changing was a business which provided employment to as many as 174 persons according to the 1872 census. The money-changers supplemented moneychanging business by money lending business. Since the introduction of uniform currency system throughout the country, however, moneychanging business is entirely extinct.

In the latter part of the last century state postal savings banks gained in preference to private bankers and the solitary bank office in the district. Since 1870 a new opening for the investment of capital was presented to the people by way of shares of joint stock companies. The rest of the surplus funds of individuals generally went in money-lending. The old Gazetteer notes it as a peculiar feature of the system of money-lending in Broach that transactions of moneylending were almost entirely in the hands of non-professional moneylenders, who supplemented the profits of their regular business by advancing small sums at high rates of interest. The town moneylenders comprised pleaders, dealers, clerks in merchants' offices, government servants and a few well-paid artisans. Of the country moneylenders, the chief were village shopkeepers, well-to-do cultivators and cotton dealers. These sets of moneylenders may be compared with those described by the Bombay Provincial Banking Enquiry

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Committee which sat half a century later.* There were very few professional moneylenders and the few bankers who lent money did so only in large sums and to persons of good credit. Traders, shopkeepers of standing and towns-people in a good social position borrowed from bankers at a rate varying, according to their credit, from 9 to 12 per cent. per annum. No special security was required in these cases and pledging gold and ornaments was for all practical purposes unknown both in towns and the country side. The rest of the towns-population such as artisans, labourers and poorer classes, who had nothing to mortgage or to pledge, borrowed from non-professional town moneylenders like the small capitalists, shopkeepers, moneychangers, pleaders and others, at a rate varying between 15 and 24 per cent. In the villages, the village shopkeeper was the omnibus source of credit as he is even in the present times. Many of the cultivators of cash crops, however, used to have dealings with some small capitalist in the nearest town and obtained loans even from bankers if they had property or had undertaken trade. Rich cultivators could borrow on personal security from bankers at the rate of 9 to 12 per cent per annum. Land was the most welcome security almost universally accepted and the village cotton-dealers lent to poor cultivators against their growing crops, especially cotton.

MONEY-LENDERS.

Money-lenders.—Traditionally, private individual agencies have been catering to the credit needs of the bulk of rural as well as urban population in the country. These are to be distinguished from Governmental, cooperative and modern joint-stock agencies. The main credit agencies of this nature are the following as listed by the Bombay Provincial Banking Enquiry Committee (1929-30) :

(1) The Indigenous Banks and Bankers.

(2) Money-lenders comprising

- (a) Village Money-lenders
- (b) Town money-lenders
- (c) Land-owners or Agriculturist moneylenders.
- (d) Goldsmiths and dealers in ornaments who specialise in loans secured by pledge of ornaments.
- (e) Moneyed persons of all classes who invest surplus funds in loans.

(3) *Shroffs* and other persons dealing in *hundis*.

(4) Merchants, commission agents and *dalals*.

The distinction between these different agencies is now more or less of historical interest since their activities have been lately so regulated that they fall under two categories viz. money-lenders

* An account of the latter's findings will be found in the section on Money-lenders.

and banks. The indigenous bankers should properly fall under the second category; but weighed by the standards of modern banking, their functions were not in strict conformity with these standards. They all did not accept deposits which is the essential feature of modern banking business. They were individuals or private firms receiving deposits and dealing in *hundis* or lending money. They were called *shroffs* as opposed to the *sowcars* or the money-lenders.

From the evidence before the Bombay Provincial Banking Enquiry Committee (1929-30) by a *shroff* from Broach we gather that there were some eight big firms of *shroffs* and other small firms by the end of the last century and they were doing quite well till the beginning of the present century. Most of them, however, had to be closed on account of losses and bad debts. Some more new *pedhis* started working in the early twenties or thereabouts. The old firms were run by individuals whereas the new ones were mainly firms of partners. The old firms, again, were doing purely moneylending while the new firms received deposits as well as lent money. The same witness complained that the Deccan Agriculturists' Relief Act, 1879, had adversely affected the business of *shroffs* indirectly through its effects on *sowcars*, who as a consequence of the enactment of the Act could not recover their dues from the agriculturists, with the result that the *sowcars* in their turn failed to repay their debts to the *shroffs*.

Another witness, a representative of the Broach Narmada Banking Company, stated that they worked on the basis of the joint stock bank, such as opening current accounts, receiving deposits and giving cash credit. They also dealt in *hundis*. They received deposits at 5 per cent. and charged 7½ to 9 per cent on advances made by them. They always advanced to merchants and *sowcars* and not to agriculturists directly. They discounted *hundis* charging 4 to 6 annas per cent. but lately they found in the banks a great rival in *hundi* business because of the latter's very low discount rate.

Control by Legislation.

Hardly anything is known about the operations of the indigenous bankers in the district since the publication of the Bombay Provincial Banking Enquiry Committee Report. Since the legislation for regulation of moneylending activities, the indigenous bankers have been compelled by law to get themselves registered under the Moneylenders Act of 1946 and for all legal and practical purposes they are treated as moneylenders.

For many years past, the village moneylender or *sowcar* is the most prominent agency for financing the agricultural industry of the rural areas. He generally does his business with his own capital, supplemented by borrowings from the urban moneylender or a city *shroff*. Often he keeps a village shop and supplies goods on credit and recovers his dues in cash or kind. Inspite of the regulation of his operations consequent upon the enactment of various pieces of

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Control by Legislation.

legislation by the State Government and the curtailment of his activities owing to competition from several cooperative and joint-stock agencies, the village moneylender is still looked upon as a major source of rural credit.

This is clearly borne out by the findings of the All India Rural Credit Survey Committee which published its report in 1954. This report reveals that more than 90 per cent of the total borrowings of cultivators are met from non-institutional private agencies of which the most important are money-lenders who account for nearly 70 per cent; of the latter 45 per cent are professional moneylenders and 25 percent represent the agricultural moneylenders. In contrast to this, the combined contribution of Government and the co-operatives was about 6 per cent of the total (each accounting for about 3 percent). The commercial banks contributed the insignificant proportion of 1 percent in the direct financing of the cultivator. These comparative figures bring out into bold relief the outstanding importance of moneylenders among the existing rural credit agencies.

In absence of any reliable information, no observations are possible on the operations of village *sowcars* in the district for any of the past years. The Bombay Provincial Banking Enquiry Committee Report confined its observations mainly to the *modus operandi* of the moneylenders, the rates of interest charged by them, etc. It does not give any idea of the magnitude of their operations or their number in the province. Intensive inquiries carried out by the committee in selected villages in the Broach district, however, showed that the rate of interest charged by the moneylenders ranged between 6¾ and 12 per cent, rising in a few cases to 25 per cent. The committee found that the rate generally charged in Gujarat was the lowest in the Bombay Province.

The need for regulation of private credit agencies in the rural area was felt since long mainly with a view to emancipating the agriculturist by checking the usurious lending and other malpractices of the *sowcars* The Bombay Provincial Banking Enquiry Committee did not favour licensing moneylenders but suggested that there should be legal provisions for the regulation of their accounts. There were, however, not a few witnesses who favoured licensing. The need was met when the Bombay Moneylenders Act of 1946 came into effect on 17th November 1947.

Features of Regulated Credit.

The salient features of regulated credit embodied in the Act are: (1) licensing of moneylenders, (2) maintenance of accounts by them in prescribed forms and (3) limitations on the rates of interest charged by the moneylenders. These are, indeed, laudable objectives and are intended, as stated by the Registrar-General of moneylenders, to help the process of moulding the present pattern of the country's economy. While the moneylender under the scheme of regulated credit is expected to dispense credit on principles of social justice,

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so far as the debtor is concerned, the Act is also intended to have some educative value, the main object being to protect the debtor from the consequences of his reckless borrowing. With his account periodically before him, the debtor is expected to be more alert to the growth of his liabilities and to have an opportunity of taking stock of his position from time to time.

The Act was made applicable to Broach District, as to other parts of the State, from 17th November 1947 except the merged areas of the former Indian States which were brought under its purview from 19th December 1948.

The number of moneylenders holding valid licences as on 31st July 1949 was 219. It fell to 168 by 31st December 1949 due to non-renewal of licences by 61 moneylenders during the period. This was broadly in keeping with the general trend in the State of failure to renew licences. The number of licenceholders increased to 180 as on 31st July 1950 and fell to 123 as on 31st July 1952. The number for the whole State also showed a precipitous fall from 24,592 to 16,262 for the corresponding dates. In the following years viz. 1952-53 and 1953-54, however, the number of moneylenders holding valid licences increased considerably. The number of licenceholders rose from 123 as on 31st July 1952 to 187 on the corresponding date of the following year and it stood at 198 on 31st July 1956. This increase may be attributed mainly to the upward revision of the maximum rates of interest under the Government Notification dated, the 5th July 1952.

The following two tables (No. 1 and 2) show the extent of transactions of the licensed money-lenders who were exempted and who were not exempted under section 22 of the Bombay Money-Lenders Act, 1946.

TABLE No. 1

Transactions of Licensed Money Lenders (Exempted under section 22 of the Bombay Money Lenders Act, 1946) Broach District

Year.	Loans to traders	Loans to non-traders	Total
	Rs.	Rs.	Rs.
1949-50	5,51[illegible]93	7,74,755	13,25,848
1950-51	7,32,700	7,70,083	15,02,783
1951-52	7,54,127	7,45,490	14,99,617
1952-53	4,03,648	7,48,428	11,52,076
1953-54	18,627	99,887	1,18,514
1954-55	3,26,225	14,91,414	18,17,639
1955-56	3,43,200	8,10,473	11,53,673

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TABLE No. 2

Transactions of Licensed Money Lenders (not exempted under section 22 of the Bombay Money Lenders Act, 1946) Broach District.

Period	Loan Advanced.		
	Loans to Traders	Loans to Non-traders	Total
	Rs.	Rs.	Rs.
17-11-1947 to 31- 7-1948 ...	2,91,707	1,60,822	4,52,529
1- 8-1948 to 31- 7-1949... ...	5,25,543	5,14,894	10,40,437
1- 8-1949 to 31-12-1949 ...	3,42,735	5,31,067	8,73,802
1949-50 ...	10,76,487	10,72,200	21,48,687
1950-51 ...	7,34,225	13,82,096	21,16,321
1951-52 ...	6,05,220	10,60,428	16,65,648
1952-53 ...	14,27,624	10,01,997	24,29,621
1953-54 ...	22,85,131	10,16,764	33,01,895
1954-55 ...	7,94,480	14,47,227	22,41,707
1955-56 ...	7,63,853	35,13,807	42,77,660

There were no banks and companies holding valid licences under the Act, as they were exempted from the provisions of sections 18 to 21 of the Act until the end of the year 1949.

Bombay Agricultural Debtors' Relief Act, 1939.

Even before the Moneylenders Act was passed, the Government of Bombay had brought into operation on a small scale the Bombay Agricultural Debtors' Relief Act, passed by the legislature in 1939. It was passed with a view to reducing the aggregate indebtedness of genuine agriculturists so as to bring it reasonably within their capacity to repay. Compulsory scaling down of debts and subsequent arrangements for the repayment of the adjusted amounts in managable instalments constituted the essence of the scheme of the Act. Long back in the last century the Deccan Agriculturists' Relief Act, 1879, had been passed and its objective was similar to that of its recent counterpart. In effect both these pieces of legislation are of negative utility in the sense that the real object underlying their enactment is to release genuine agriculturists from indebtedness once for all and to solve the problem of agricultural indebtedness. The accomplishment of this object is, however, sure, in the long run, to facilitate the flow of finance to the agriculturists by enhancing their creditworthiness. The aggregate indebtedness of genuine agriculturists is sought to be reduced by bringing it reasonably within the compass of their capacity to repay. The term, "agriculturist" as defined in the Deccan Agriculturists' Relief Act, 1879, was found to be actually bringing in its fold not only genuine agriculturists of the cultivators' class but also pseudo-agriculturists. Under the term

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"debtor" as defined in the Bombay Agricultural Debtors' Relief Act, the indebted person must be a holder of land and must also be cultivating lands personally. Further his income from sources other than agriculture should not exceed 33 per cent of his total annual income or Rs. 500 whichever is higher. Again income from lands cultivated by tenants is to be regarded as non-agricultural income under the Act.

The Act was applied as an experimental measure to certain selected parts of the province in 1942. Broach district, however, was entirely left out. Debt Adjustment Boards were established the same year for the purposes of the Act. The Act ceased to operate in 1945 in the light of the recommendations of the committee appointed by the Government in 1943 to inquire into the defects in the working of the Act and to suggest measures to remedy the same. The amended Act was extended to some more selected areas from 1st May 1945 and was made effective throughout the province from 1st February 1947. It was made applicable to Wagra Taluka of Broach District, however, with effect from 1st May 1947 while the merged areas of the former Rajpipla State were brought under the Act only from 15th September 1948.

The Act was again amended in 1947 with a view to consolidating the law for the relief of agricultural debtors in the province and for remedying certain other defects which the experience of working of the Act, had brought out. The Debt Adjustment Boards were dissolved and the administration of the Act was entrusted to civil courts.

The application of the Act has been restricted to debtors who hold land for agricultural purposes or have held such land at any time not exceeding 30 years before the 30th January 1940 and to debts not exceeding Rs. 15,000 in any individual case. According to the provisions of clause (iv) of sub-section (2) of section 32, the rate of interest in case of awards should not exceed 6 per cent per annum or such lower rate as may be notified in this behalf by the State Government or the rate agreed upon between the parties when the debt was originally incurred or the rate allowed by the decree in respect of such debts, whichever is the lowest.

The Government had fixed 4 percent per annum as the rate of interest for years from 1948-49 to 1954-55 for the purposes of awards made under section 32(2) of the Act. In the case of awards passed in favour of Land Mortgage Banks under section 33 also, the Bank is to be entitled to recover the amount due to it from the debtor together with interest at such rate as the State Government may notify in this behalf. Six per cent per annum was the rate of interest fixed by the Government for the cooperative years 1948-49 to 1952-53 for the purposes of awards made under section 33(3) of the Act. However this was revised to 7¼ percent in 1953-54 under the Government Notification dated, the 12th October 1953.

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Steps have also been taken to advance crop or seasonal finance to persons who are parties to any proceedings or awards under the Act. The problem of facilitating the provision of such finance at a pending under the provisions of the Act or in whose cases awards have been passed cannot possibly have any source of cheap finance. So, to accommodate them through the existing as well as newly organised societies, the societies were advised to admit persons who were parties to any proceedings or awards under the Act coming from their area of operation and also from the neighbouring villages as ordinary members or nominal members and to reduce their lending rate of interest to 6¼ per cent. or 7-13/16 per cent., as conditions of the societies concerned permitted by amending their bye-laws suitably. The central financing agencies have agreed to charge a concessional rate of 4½ per cent to societies in respect of funds provided to finance the agricultural debtors. Provision for admitting nominal membership was also made in central financing agencies. The report on the administration of the Act during 1954-55, however, records that the system of nominal membership does not appear to have proved successful, due to the tendency on the part of the agriculturists to get themselves enrolled as ordinary members of the societies in their villages. The total number of such nominal members admitted by societies and central financing agencies during the last few years till the year 1954-55 has been very small.

Besides cooperative societies, the principal agencies recognized for grant of crop finance are the Revenue Department which advances tagai loans, grain depots and moneylenders authorised under section 54 of the Bombay Agricultural Debtors' Relief Act. The main brunt of crop finance, however, has been borne by cooperavive societies. This is perfectly in keeping with the policy of the Government that as far as possible the crop or seasonal finance should be advanced through cooperative societies to the debtors under the Act. This is borne out by the fact that out of the total amount of crop finance advanced in 1954-55 viz. Rs. 1,05,94,027 in the whole State, only Rs. 8,49,363 came from agencies other than cooperative societies while the balance, i.e. Rs. 97,44,664 was the share of the cooperative societies.

The Report on the working of the Act for 1954-55 records with satisfaction that the promulgation and the administration of the Act, which is now in operation throughout the Bombay State, has relieved the heavy and long standing burden of debt of the agriculturists in the State. It has also helped them, it continues, a good deal owing to the satisfactory arrangements made regarding the advance of crop finance through the different agencies. The policy adopted by Government of making the co-operative societies the principal agency for providing crop finance to adjusted debtors, has given an impetus to organisation of new co-operative societies. The figures of crop advances to agricultural debtors reveal that the agency

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of co-operative societies, played a prominent part in providing crop loans and that the debtors are increasingly taking advantage of the facilities provided by the co-operative societies. Recoveries of crop finance was satisfactory in Broach district during 1954-55.

The following is the position regarding total crop finance made available in Broach district through Co-operative Societies in 1949-50 and subsequent years :

Year.	Loans.
1949-50	11,00,914
1950-51	11,20,181
1951-52	9,04,620
1952-53	10,18,801
1953-54	10,23,978
1954-55	8,73,837

The following table shows the working of the Act in Broach district since 1st July 1946 to 30th June 1955 :

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TABLE No. 3

WORKING OF THE BOMBAY AGRICULTURAL DEBTORS RELIEF ACT, 1947

BROACH DISTRICT

Period.	Number of applications received from Debtors and Creditors under			Number of applications withdrawn by		Amount involved in applications involving		Number of applications disposed of			
	Section 4(1)	Section 9	Section 19	Debtors	Creditors	Money claims	Sale Mortgage transactions	On preliminary issues	By adjudicating debtors as insolvents	By passing awards	For other reasons
1	2—A	2—B	2—C	3—A	3—B	4—A	4—B	5—A	5—B	5—C	5—D
						Rs.	Rs.				
From 1st July, 1946 to 30th June 1950	34,319	77	1 519	2,157	1,618	1,07,08,811	48,96,579	1,860	7	8,639	6,844
1st July 1950 to 30th June 1951	1,080	—	76	181	747	3,86,656	1,76,493	477	4	2,215	3,072
1st July 1951 to 30th June 1952	38	—	39	8	—	23,506	84,690	363	23	1,869	4,506
1st July 1952 to 30th June 1953	40	—	33	11	2	15,248	21,340	318	4	839	3,302
1st July 1953 to 30th June 1954	22	—	6	6	—	648	949	139	—	419	753
1st July 1954 to 30th June 1955	20	—	—	2	—	20,659	—	80	—	169	190

Period	Amount involved in applications as shown in column 5				Amount by which debts are reduced	Number of awards taken by Land Mortgage Banks		Number of appeals preferred against awards
	A	B	C	D		Number	Amount	
1	6—A	6—B	6—C	6—D	7	8—A	8—B	9
	Rs	Rs	Rs.	Rs	Rs	Rs.	Rs	
1st July 1946 to 30th June 1950	12,91,905	11,406	53,35,583	43,20,588	24,96,335	46	23,939	32
1st July 1950 to 30th June 1951	2,99,117	1 050	9,67,493	21,22,464	16,12,909	—	—	15
1st July 1951 to 30th June 1952	3,53,117	15,831	11,23,869	22,80,392	15,13,599	—	—	15
1st July 1952 to 30th June 1953	3 11,137	8,409	5,42,525	22,03,422	15,97,918	—	—	39
1st July 1953 to 30th June 1954	2,64,447	—	5,84,099	13,32,832	6,93,691	—	—	21
1st July 1954 to 30th June 1955	3,10,330	—	6,57,237	6 52,951	3,12,623	—	—	8

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Explanations to some of the headings in table No. 3:—

Section 4(1): Any debtor ordinarily residing in any local area for which a Board was established under section 4 of the repealed Act on or after the 1st February 1947, or his creditor, may make an application before 1st August 1947, to the court for the adjustment of his debts.

Section 9: Notwithstanding anything contained in the preceding sections, if during the pendency of proceedings before the court or the court in appeal as the case may be, a settlement is arrived at between a debtor and his creditor and if such court is satisfied that the settlement has been made by the debtor voluntarily and is for his benefit, such court may make an award in terms of such settlement.

Section 19: All suits, appeals, applications for execution and proceedings pending before a District Judge under section 53 of the Deccan Agriculturists' Relief Act, 1879, in respect of any debt pending in any civil or revenue court shall, if they involve the question whether the person from whom such debt is due is a debtor and whether the total amount of debt due from him exceeds Rs. 15,000 be transferred to the court.

On preliminary issues:—These are whether the person is a debtor within the meaning of the Act, and whether the amount of debt involved is less than Rs. 15,000.

Awards taken by Land Mortgage Banks: In case the adjusted debt of a debtor exceeds half the value of his immovable property and his creditors agree to scale it down further but still the debtor fails to pay the debts the court will sent a scheme to a local land mortgage bank embodying the terms of the award for its acceptance and payment to the creditors, and the bank is entitled to recover the amount specified in the award from the adjusted debtor in such instalments as the court may fix.

CO-OPERATIVE SOCIETIES AND BANKS.

Cooperative Societies and Banks: The latter part of the last century witnessed widespread discontent among the people particularly among the peasantry because of the severe recurring famines and the resulting destitution. Consequently, as the Maclagan Committee of 1915 observed, indebtedness progressively increased and usury was commonly rampant. It was in such circumstances that the idea of cooperative credit gained ground in this country. The first positive indication was given in the report of the Famine Commission of 1901 which endorsed the idea of Mutual Credit Associations for the relief of the agriculturists. At the same time, i.e. in the year 1901, the Government of India appointed a committee to go into the details of the problem and its recommendations were acted upon in the form of the first Cooperative Societies Act passed in 1904. It was thus that the cooperative idea was ushered in this country half a century later than in Europe.

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Co-operative Societies and Banks.

The Central Act was of an enabling nature and it was left to Provincial Governments to work out the details of it. Accordingly, the Government of Bombay started the organisation of co-operative movement in 1904 in a few districts on an experimental basis. It was only in 1905 that the first society was registered in Bombay Province. The Act of 1904 which was a pioneering measure did not go very far. It provided only for credit societies and no provision was made for the institution of a central agency such as a central bank or banking union for financing primary credit societies. Morever the working of the Act also left much to be desired. With the passing of the Cooperative Societies Act, 1912 some of the defects of the 1904 Act were remedied and the movement showed signs of good progress. A committee under the Chairmanship of Sir Edward Maclagan was soon appointed to assess the possibilities of the movement and the Committee's report was published in 1915. It made various recommendations. With the introduction of the Reform Act of 1919, cooperation became a Transferred subject in charge of a Minister. A Cooperative Societies Act for Bombay Province was passed in 1925. The progress of the movement between 1925 and 1930, however, was rather lop-sided though considerable and consolidation rather than expansion became the keynote of government's policy towards cooperation. With the introduction of full provincial autonomy in 1937, the movement received considerable impetus, and during the last ten years, after the achievement of independence, it has became an integral part of the nation's economic ideology.

The first society to be registered in Broach district was a co-operative credit society in the village Samni Satral in Amod Peta in 1907. Details about the working of the society prior to 1912, however, are not available. In the first year of its work, i.e., 1912, it had a membership of 34 and deposits and reserve fund amounted to Rs. 583 and Rs. 208 respectively. No advances were made during the first year. The society was converted into a multi-purpose society in 1944. The society made satisfactory progress till 1950 in which year it sold goods worth Rs. 1,17,486 and purchased goods worth Rs. 1,17,910. It also continued to advance credit to its members. In that year it had a membership of 92 individuals and advanced Rs. 19,525. The deposits, share capital and reserve fund amounted to Rs. 6,309, Rs. 7,310 and Rs. 6,312 respectively. But this matching of credit with other multi-purpose activities proved not a very happy achievement, as it resulted in defalcation in later years. With the reorganisation of its Managing Committee the society has lately improved its working and has devoted itself to dispensation of credit only.

There were, by the end of the co-operative year (July-June), 1954-55, 143 primary agricultural co-operative credit societies (un limited) with a membership of 8,216 and working capital of Rs. 37,33,122 The agricultural credit societies organised on limited liability basis numbered 144 and had 15,150 members and

Rs. 51,63,144 as working capital. There were 35 non-agricultural credit societies (limited) with a membership of 9,833 and working capital of Rs. 83,46,866. These included seven urban banks which had 5,403 persons as members and Rs. 73,42,430 as working capital. The only land-mortgage bank in the district had 1,019 members and Rs. 8,11,608 as working capital in 1954-55 and the District Central Co-operative Bank, in the same year, had as its members 1,635 individuals and 388 societies and Rs. 1,35,77,366 as working capital.

Agricultural Co-operative Credit Societies.

Agricultural Co-operative Credit Societies.

These constitute quite a good bulk of the rural sector of co-operative credit movement, and this is as it should be, since the movement was initially inspired for meeting the credit needs of the agriculturist. They are the primary organisations composed mostly of agriculturists and generally on the basis of unlimited liability. The basis of liability may, however, be changed at the will of the members. But unlimited liability is peculiarly suited to the working of such societies, which cover only one village and do not perform multiple functions.

Each of the societies has mostly a single village for its area of operations but occasionally the hamlets under the village and also smaller villages in the neighbourhood are included in its jurisdiction. Membership is open to all the residents of the area who satisfy certain conditions prescribed in the bye-laws. Nominal membership* is introduced so that the societies may accommodate for credit facilities the debtors whose debts have been adjusted under the Bombay Agricultural Debtors' Relief Act. Their funds emanate from a variety of sources. They mobilise rural savings mainly from members in the form of fixed and savings deposits. The compulsory deposit system which was once in vogue, of deducting a fraction of loans advanced to the respective member's deposit account has given place to collection of voluntary contributions, share capital and deposits at the time of harvests. Besides deposits and share capital, entrance fees and donations add, though a small fraction, to the total funds. The most important source, however, is loans and overdrafts from other credit societies and the central financing agency.

The funds thus raised are utilised for providing financial accommodation of short-term and intermediate-term nature to the members for productive and provident purposes, mainly agricultural. The duration of the loans generally does not exceed five years, the bulk of them being for twelve months only. The purpose of the loan is to finance such short-term agricultural needs as purchases of manure, seed, etc., and agricultural operations, and such intermediate-term needs as purchases of cattle and implements, repayment of old debts and marriage and ceremonial purposes.

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* For further details see the section on Money-lenders.

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Agricultural Co-operative Credit Societies.

Loans for unproductive purposes, such as ceremonial expenses have sometimes to be granted to prevent the agriculturists from being driven to money-lenders. Loans are given on personal security of the borrower supplemented by two approved sureties; and when loans are advanced, if at all, against immovable property, the latter is regarded only collateral. The extent of loans advanced to each member is governed by his normal credit which is fixed not later than the principal harvest season. Loans within the fixed limits are granted except in emergency cases when the limits may be exceeded subject to the proviso that the excess, in no individual case, may be over 25 per cent of the sanctioned credit, and that the total normal credit fixed for the society is not exceeded. The total outstandings by way of loans, in the case of any member, also must not exceed ten times the amount of shares standing to his credit in the society. Variations in lending and borrowing rates are permitted within certain limits with the approval of the financing agency. Generally the rate charged on loans advanced is equitable and does not often exceed 9 per cent. Lately the societies have been taking steps to amend their bye-laws to reduce the lending rate to 6¼ per cent in subsequent to the recommendations of the Nanavati Committee in the light of which Government has declared various forms of assistance to the societies to enable them to work without losses at the above rate.

The following table indicates the changes in the operations of the primary societies from the pre-war year 1938-39 through certain post-war years to 1954-55.

TABLE No. 4

OPERATION OF AGRICULTURAL CREDIT SOCIETIES (UNLIMITED) BROACH DISTRICT

Year	Total No. of Societies	Number of Members	Loans made during the year to Individuals	Loans due at the end of the year by Individuals	Of which overdue	Loans held at the end of the year from: Provincial or Central Banks	Loans held at the end of the year from: Government	Deposits held at the end of the year from: Members	Deposits held at the end of the year from: Non-Members	Deposits held at the end of the year from: Societies
1	2	3	4	5	6	7	8	9	10	11
			Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	Rs.
1938-39	159	6,339	4,63,565	10,56,547	2,70,696	4,22,156	—	20,576	41,953	—
1947-48	159	5,745	9,88,664	9,93,641	80,882	3,20,874	—	45,636	27,568	19
1948-49	{ 157 2	7,599 62	14,86,564*	19,82,410† 14,352	1,28,662 —	11,78,225 4,400	— —	85,137 1,690	48,790 5,533	1,596 —
1949-50	146	7,350	20,68,258	19,42,059	1,02,875	11,53,378	—	1,07,021	37,465	19
1950-51	143	7,518	23,36,886	22,04,678	71,599	13,83,026	—	1,07,288	44,546	—
1951-52	142	7,731	22,84,540	26,69,422	67,888	16,77,715	—	1,14,664	53,385	400
1952-53	142	7,894	26,29,102	27,53,634	1,85,893	17,00,908	—	1,23,043	63,879	—
1953-54	142	7,952	29,71,223	27,99,864	1,20,245	16,71,509	—	1,75,969	81,649	—
1954-55	143	8,216	33,24,630	31,53,201	1,40,641	18,42,005	—	2,33,648	35,104	—

* This figure is inclusive of Loans made during the year to Individuals as well as Banks and Societies.
† This figure is inclusive of Loans due at the end of the year by Individuals as well as Banks and Societies.

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TABLE No. 4 (Contd.)

Year	Share Capital	Reserve Fund	Other Funds	Working Capital	Profit (+) or loss (—) for the year	Most usual rate of interest	
						On borrowings Percent	On lendings Percent
	12	13	14	15	16	17	18
	Rs.	Rs	Rs.	Rs.	Rs.		
1938-39	3,19,695	3,58,915	36,771	11,99,666	+ 41,852	6	-3/8 6 1/4 to 9 3/8
1947-48	3,07,770	4,41,244	63,602	12,96,885	+ 29,690 — 908	4	
1948-49	4,44,435 —	5,07,286 5,562	64,761 —	23,30,230 17,185	+ 57,940 — 1,072 — 340	— —	— —
1949-50	5,22,700	4,73,179	84,990	23,78,752	+ 58,180 — 718	1—4	6 1/4 to 7-13/16
1950-51	6,19,745	4,87,147	99,150	27,40,902	+ 49,337 — 525	2—4 —	6 1/4
1951-52	6,84,715	5,09,606	1,21,058	31,61,543	+ 47,622 — 11,179	— —	— —
1952-53	7,48,135	5,10,206	1,08,825	32,54,996	+ 9,372 — 9,015	4 1/2 —	7-13/16
1953-54	8,42,760	5,38,401	1,20,077	34,30,366	+ 87,092 — 3,719	4 1/2	7-13/16
1954-55	9,26,934	5,75,752	1,20,279	37,33,122	+ 93,854 — 8 050	4	6 1/2

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It is evident that there has been a fall in the number of societies during the last sixteen years. The number which was 159 in 1938-39 has fallen to 143 in 1954-55, recording a fall of about 11 per cent. Membership rose from 6,339 in 1938-39 to 8,216 in 1954-55 and was sustained throughout the years without major fluctuations either way. This is a meagre increase of 29 per cent. as contrasted with the promising rise of nearly 500 per cent. for the whole State. As the rise in membership is regarded, correctly so, as a healthy sign of the spread of co-operative habit, the conditions in Broach may not appear to be particularly encouraging.

The loans operations of the societies, however, show quite a steep rise during the period. Since the primary societies are at the bottom of the co-operative structure, they supply finance to individuals in the main, and loans to individuals increased from Rs. 4,63,565 in 1938-39 to Rs. 33,24,630 in 1954-55. Working capital also increased from Rs. 11,99,666 to Rs. 37,33,122. At the same time, however, total outstandings rose from Rs. 10,56,547 at the end of the year 1938-39 to Rs. 31,53,201 at the end of year 1954-55, though the amount overdue precipitously fell from Rs. 2,70,697 to Rs. 1,40,641, the latter constituting only slightly more than 4 per cent of total outstandings.

It is evident from the table that the two most important components of working capital are the paid-up share capital (Rs. 9,26,934 in 1954-55) and loans from Central Bank (Rs. 18,42,005 in 1954-55). Deposits, current, savings, or fixed make just a fraction of the working capital.

In 1938-39, the societies made a profit of Rs. 41,852 and in later years the same order of profits was maintained till 1953-54, though some societies incurred losses amounting to small sums. In 1954-55 the profit was slightly more than twice as that of 1938-39. The percentage of profits to working capital, however, is steadily falling as the latter is steadily increasing. The lending rate of interest, it appears from the last two columns of the table, has fluctuated between 6¼ and 9⅜ per cent. There is a constant endeavour on the part of the societies to settle the rate at 6¼ per cent. which is favoured by the Gadgil Committee as the proper rate to be charged on current finance. As seen from the table, the rate was 6¼% in 1954-55. One notable feature of the co-operative credit is the very short time lag between application and sanction and final disbursement of loans. Disbursement does not ordinarily take more than a month after the sanction and this aspect of co-operative credit may be interestingly contrasted with the corresponding feature of Government credit disbursed in the form of Tagai loans.

Multi-Purpose Societies.

Multi-Purpose Societies:—The agricultural credit societies meet but one need of the agriculturist, viz., credit. But it has been growingly felt that the basis of the primary unit should be so broadened that it may touch the agriculturist's life at more than one point by

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Multi-Purpose Societies.

catering to as many needs of its members as possible. The Joint Report submitted to the Government by the Registrar and Shri V. L. Mehta, in 1937 recommended the organization of multi-purpose societies and suggested that where marketing facilities are available, a multi-purpose society for a group of villages within a radius of about five miles should be registered with the object of supplying the normal cultivation needs of its members. The Report observed that the main objects of an agricultural co-operative credit society, viz., to educate its members in the value and use of money and to provide controlled credit to them cannot be achieved when credit is divorced from supply or sale. The Government accepted the recommendaitons and, to give effect to the same, has been encouraging the organizations of multi-purpose societies and also conversion of the primary credit societies into multi-purpose ones.

The constitution and the working of the multi-purpose societies are on the same lines as those of the primary credit societies except that the former combine marketing members' produce with providing credit to them. But the general result of this has been the limitation of their credit operations. They, in the first instance, provide short-term finance required by their members for their normal cultivation needs. They may advance intermediate-term loans only to a limited extent. They also aim at supplying such agricultural requisites as seed, manures, feeding stuffs, etc., and also domestic and other requisites to members and making arrangements for joint sale of their produce. Thus, being concerned with almost all agricultural needs of its members, the multi-purpose society is better positioned to avoid the dangers of excessive finance, misapplication of loans and unpunctuality in repayments. Because of this variegated nature of functions, the multi-purpose society, unlike the purely credit society, is organized on the basis of limited liability.

The multi-purpose societies, in this way, are but a further evolution of credit societies, and they co-operate with the latter in the disposal of their members' produce. To enable the multi-purpose societies effectively to blend credit with marketing, the Government on the recommendations of the Mehta-Bhansali Joint Report have authorised the Registrar to sanction long-term loans to such societies for construction of godowns, for storing agricultural produce and other requisitics, up to the extent of two-third of the cost of construction at the concessional rate of 4% per annum, subject to the maximum of Rs. 2,000, which may be exceeded by previous Government permission.

TABLE No. 5

Operations of Agricultural Credit Societies (Limited), Broach District.

Year	Total No. of Societies	No. of Members	Loans made during the year to individuals	Loans due at the end of the year by individuals	Of which overdue	Loans held at the end of the year From: Provincial or Central Banks	Loans held at the end of the year From: Government	Deposits held at the end of the year From: Members	Deposits held at the end of the year From: Non-members	Deposits held at the end of the year From: Societies
1	2	3	4	5	6	7	8	9	10	11
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1938-39 ...	1	19	—	—	—	—	—	300	—	—
1947-48 ...	29	1,799	1,27,472	1,25,169*	340	72,772	—	1,27,927	23,260	—
1948-49 ...	{ 44	4,309	7,50,225	8,33,535	26,906	6,85,564	—	1,53,781	67,790	—
	{ 14	1,749	1,04,712	1,03,223	—	1,51,855	23,300	61,752	20,258	—
1949-50 ...	84	8,477	13,54,532	13,52,415	3,614	9,17,692	23,439	4,81,115	1,72,471	200
1950-51 ...	103	9,708	15,68,580	14,52,951	8,482	10,19,822	54,474	7,47,603	1,79,917	—
1951-52 ...	109	11,387	25,73,885	22,68,303	776	17,46,297	76,500	5,62,256	1,48,555	—
1952-53 ...	118	12,278	28,02,978	25,90,977	33,071	18,80,577	—	5,98,230	2,64,862	2,23,165
1953-54 ...	138	14,002	33,94,178	27,60,243	61,491	17,77,099	—	7,57,377	1,94,568	1,21,154
1954-55 ...	144	15,150	44,29,292	35,02,550	49,638	21,81,840	500	9,97,445	1,02,218	37,250

Year	Share Capital	Reserve Fund	Other Funds	Working Capital	Profit (+) or Loss(—) for the year	Most usual rate of interest: On borrowings Per cent	Most usual rate of interest: On lending percent.
	12	13	14	15	16	17	18
	Rs.	Rs.	Rs.	Rs.	Rs.		
1938-39 ...	310	—	—	610	— 11	4	—
1947-48 ...	92,650	9,516	8,814	3,34,939	+ 2,055	4	6—1/4 to 9—3/8
1948-49 ...	(2,90,920	58,872	39,928	12,96,855	— 3,084 (+ 55,521	—	—
	(1,06,290	10,690	20	3,74,135	(— 2,131 (+ 22,619		
1949-50 ...	5,64,895	,47,991	1,30,914	24,38,717	(— 731 (— 2,833	1—1/4 to 4	6—1/4 to 7—13/16
1950-51 ...	7,28,660	1,89,003	1,65,796	30,84,735	(+ 30,191 (+1,29,126	2 to 4	6 to 6—1/4
1951-52 ...	8,27,060	2,47,938	3,94,758	40,03,344	(— 10,798 (+ 66,333	—	—
1952-53 ...	9,53,590	2,89,161	2,25,402	43,62,996	(— 21,353 (+ 84,461	4—1/2	7—13/16
1953-54 ...	11,44,585	3,22,857	2,69,640	45,87,280	(— 28,721 (+ 65,492	4—1/2	7—13/16
1954-55 ...	12,64,025	3,47,080	2,32,786	51,62,144	(— 67,352 (+ 61,508 (— 56,081	4	6—1/2

* This figure includes Loans due at the end of the year from Individuals as well as Banks and Societies.

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Multi-Purpose Societies.

In the post-war years the number of the societies has increased fairly rapidly and this is in keeping with the general policy of encouraging such societies and with the overall trend in the State where their number rose from 496 in 1947-48 to 1950 in 1950-51. The number of purely credit societies in the district, however, fell from 159 in 1938-39 to 143 in 1950-51, but it is difficult to say to what extent the rise in the number of multi-purpose societies was due to conversion of credit societies and due to registration of new societies. But the trend is unmistakable that there is a decided preference for multi-purpose societies over purly credit societies.

The membership also shows a healthy growth in contrast with the almost stagnant level of membership of agricultural credit societies. It rose from a mere 19 in 1938-39 to 1,799 in 1947-48 to 9708 in 1950-51 and to 15,150 in 1954-55.

Within three years, the loans advanced by the societies showed an increase from Rs. 1,25,168 in 1947-48 to Rs. 15,68,580 in 1950-51. The outstandings were of the same tune as advances at the end of the year 1950-51. However, the ratio of advances to outstandings has been on decline thereafter. In 1954-55, while the advances were of the order of Rs. 44,29,292, the outstandings amounted to Rs. 35,02,550. But the notable fact is that the overdues were but a fraction of the outstandings. For instance, in 1950-51 the outstandings were Rs. 14,32,951 whereas overdues were only Rs. 8,482. Similarly in 1954-55 the outstandings were Rs. 35,02,550 and overdues only Rs. 49,638.

The major components of working capital are the loans and deposits from the central financing agency and individual members and the share capital paid-up. The working capital registered a rapid growth from Rs. 3,34,939 in 1947-48 to Rs. 30,84,735 in 1950-51, and to Rs. 51,63,144 in 1954-55, of which the latter, nearly 42 per cent, coming by way of loans from central bank and one-fourth each by way of share capital and loans and deposits from individual members, non-members and societies.

The most usual rate of interest charged on lending appears to be in the neighbourhood of 6¼ per cent.

LAND MORTGAGE BANKS.

Land Mortgage Banks:—Besides seeds, manure, implements, etc., the agriculturist also needs finance for effecting improvements in his land with costly machinery and appliances or for purchase of land. He may also require money to pay off his old debts. Since co-operative credit societies cannot make long-term advances, because of the essentially short-term nature of their resources, it is only land mortgage banks which can raise long-term capital on easy terms and supply long-term credit to agriculturists.

The area of operation of the bank is so compact as to make it consistent with the possibility of its becoming a suitable economic unit. It is a district or a part thereof not smaller than a taluka. All the residents

of the area and all those who, in the case of borrowing members, own land in the area and co-operative societies in the area can become members. Coparceners of borrowers are admitted to nominal membership on payment of an entrance fee with no right to vote or to participate in the management.

The main function of the bank is to grant loans on the security of the landed property offered by the borrowers. Loans are given upto 50 per cent. of the value of immovable property mortgaged to the bank. The land offered in mortgage by the applicant should be of his absolute ownership, free from any prior encumbrances and not subject to any restrictions and alienations. Loans are made repayable in 10 to 15 annual equated instalments, according to the purpose of the loan and the repaying capacity of the applicant spread over a maximum period of 15 years.

The main purposes for which loans are advanced are :—

(*i*) The redemption of old debts;

(*ii*) The improvement of agricultural land and the adoption of improved methods of cultivation;

(*iii*) The installation or the purchase of costly agricultural plant and machinery;

(*iv*) The purchase of land for the purpose of improvement or more economic cultivation of existing holdings and the reclamation of waste and fallow lands; and

(*v*) to enable the tenant-cultivators to purchase the land.

The resources of the banks come by way of entrance fees, share capital, deposits and mainly loans from the Provincial Land Mortgage Bank. Borrowing members are required to take up shares of the value of 1/20th of their borrowings and non-borrowers of the minimum of Rs. 50. The borrowing capacity of the bank is limited to 20 times its paid-up share capital plus reserve fund subject to a maximum of the total of its outstanding loans against the security of mortgages and other securities held by the bank.

The history of the land mortgage banks in the State begins only from 1926 whereas the co-operative credit movement is traced back to the first decade of the present century. A Committee was appointed in 1923 to consider the question of land mortgage banks and a scheme for instituting such banks was submitted in 1926. As a result, Government approved of the registration of two land mortgage banks as an experimental measure to be financed provisionally by the Bombay Provincial Co-operative Bank. One of the two banks was organized in Broach and thus the district can boast of being one of the pioneers in the movement. But the twenty-five years or so that have passed since then have not recorded any increase in the number of such banks in the district.

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LAND MORTGAGE BANKS.

In 1938-39, the Broach District Co-operative Land Mortgage Bank, one of the 'old banks', had a total membership of 335 and a share capital of Rs. 12,851. The loans disbursed by the Bank totalled to Rs. 31,750 which amount was provided by the Provincial Land Mortgage Bank by way of loans to the District Bank. The overdues were specially heavy as in the case of other old banks and steps were taken to institute arbitration proceedings against the defaulters. The outstandings as on 30th June, 1939 stood at Rs. 1,84,143. The following table gives an idea as to the Bank's operations for some latest years:

TABLE No.

OPERATIONS OF BROACH DISTRICT CO-OPERATIVE LAND MORTGAGE BANK LTD-

Year.	No. of Members	Loans made during the year to individuals	Loans due at the end of the year by individuals	Of which overdue	Borrowings held at the end of the year			
					Borrowings from Central Land Mortgage Banks	Loans from Government.	Loans and deposits from	
							Banks and Societies	Individuals and other sources
1	2	3	4		6		8	9
	Rs.	Rs	Rs.	Rs.	Rs.	Rs	Rs.	Rs.
1951-52 .	834	1,27,421	6,15,431	23,676	5,76,988	—	—	400
1952-53	958	1,31,191	6,94,010	12,253	6,68,129	—	—	15,273
1953-54 ..	988	47,166	6,64,932	14,962	6,31,872	—	—	—
1954-55 ..	1,019	1,64,649	7,72,443	14,909	7,37,757	—	—	—

Year.	Debentures	Share Capital paid-up	Reserve Fund	Other Funds	Working Capital	Profit(+) or Loss (—) for the year	Most usual rate o interest on	
							Borrowings Percentage	Lending Percentage
	10	11	12	13	14	15	16	17
1951-52 ..	—	38,915	6,447	6,349	6,29,099	— 4,982	1 3/4 to 4 3/4	3 1/4 to 6 1/
1952-53 .	—	46,115	6,521	6,786	7,42,824	+ 7,190	1 3/4 to 5 3/4	3 1/4 to 7 1/
1953-54 .	—	47,310	6,632	7,680	6,93,494	+ 5,028	1 3/4 to 5 3/4	3 1/4 to 7 1/
1954-55	—	53,810	10,354	9,678	8,11,608	+ 3,746	1 3/4 to 5 3/4	3 1/4 to 7 1/

Outstandings have been showing a steady increase from year to year, though there is a comforting factor that arrears are a small fraction of the outstandings. The working capital which stood at Rs. 8,11,608 in 1954-55 was mainly made up of loans from the Provincial Land Mortgage Bank which accounted for Rs. 7,37,757 i.e., nearly 91 per cent.

The rate of interest charged by the Bank on its loans does not exceed 1½ per cent. over the rate charged by the Provincial Land Mortgage Bank. This is generally borne out by the last two columns

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of the table. In the year 1956-57 loans for construction of wells were advanced at 4½ per cent., for land improvement and purchase of agricultural machinery at 5½ per cent., and at 7¼ per cent. for redemption of debts and purchase of lands with a provision of a rebate of ¼ per cent. for regular payments of the instalments. The bank has been compelled to raise the rate of interest to 7¼ per cent. recently owing to financial stringency in the money-market and shortage of funds. It appears that the bank has yet to make much lee-way for charging a uniform rate of four per cent. for development finance as recommended by the Gadgil Committee.

Non-Agricultural Credit Societies.

Non-Agricultural Credit Societies:—These include societies supplying credit to their members who are generally traders and merchants, artisans, factory workers, etc., who reside in towns. They are, therefore, urban societies like salary earners', factory workers' and communal societies and urban banks.

All persons residing in the area of operation of the society which is generally a town or a part of a town are eligible for being admitted as members. But no person who is already a member of some other society dispensing credit other than the Land Mortgage Bank or a Central Financing Agency or a Sale Society can be a member except by a general or special sanction of the Registrar or Assistant Registrar.

Joint and unlimited liability cannot be acceptable to the urban population, as it can be to the rural population, because the former is composed of diverse classes and professions which do not entail close association and mutual acquaintance. So the great majority of urban societies start with limited liability. This, however, reduces the security to depositors and hence, in order to raise working capital, they have to provide some sort of guarantee in place of unlimited liability. This is done by the issue of share capital. Every member is required to take up and subscribe to at least one share, and the total fund raised by shares affords a reserve security to depositors and lenders. The owned capital is supplemented by deposits from members and non-members and loans from central financing agency. No society, however, is allowed to incur liabilities exceeding in total, eight times the total amount of its paid-up share capital, accumulated reserve fund and building fund *minus* accumulated losses.

In all cases, loans form the main, and in most cases the only business of non-agricultural credit societies. These take the form of either fixed advances or loans on the pledge of agricultural produce, gold, and silver or grant of cash credit or overdrafts against fixed deposits or Government paper. They provide other banking facilities like the issue of draft and hundis and collection of cheques, hundis, drafts, bills, dividend warrants, etc.

Salary Earners' Societies.

Owing to the lack of mutual knowledge and security for loans the urban society starts with limited liability and a share capital. In the case of salary earners, however, unlike in the case of artisans

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Salary Earner's Societies.

and traders, sufficient share capital also cannot be raised as the salary earners have no accumulated savings of their own whereby they may buy a share or two. Promotion of thrift, therefore, becomes the basis of a society for salary earners. It implies that every member shall save from his monthly salary in proportion to his means and these savings, paid into subscriptions, shall be converted into shares when they are enough to purchase one fully paid up share.

Membership of these societies is open to all persons permanently employed. Loans are granted to a member 10 times his paid up share capital or equal to his six or eight months' pay which ever is less. Loans are ordinarily made repayable in 12 to 13 monthly instalments.

In 1949-50 there were 18 salary earners' societies in the district.

COMMUNAL SOCIETIES.

As for the constitution and the functions of the communal societies, there is little to differentiate them from any other class of urban societies except that they are meant to serve members of particular communities for which they are organized. Since it was thought that restriction on the activities of the societies to only specific communities was not a very healthy move in the field of co-operation, the Co-operative Societies Act was amended in 1947-48, so as to discourage the organization of any more communal societies in the future and to commend to them the advisability of keeping membership open to persons of all communities.

There were three such societies in the district in 1949-50. As on 30th June, 1953, there were 17 salary earners' societies, two factory workers' societies and three communal societies. The following table presents a consolidated position of all the non-agricultural societies in the district including urban banks.

TABLE No. 7

OPERATION OF NON-AGRICULTURAL CREDIT SOCIETIES (LIMITED) BROACH DISTRICT

Year	Total No. of Societies	Number of Members	Loans made during the year to Individuals	Loans due at the end of the year by individuals	Of which overdue	Loans held at the end of the year from,		Deposits held at the end of the year from		
						Provincial or Central Banks	Government	Members	Non-members	Societies
1	2	3	4	5	6	7	8	9	10	11
1938-39	23	3,492	8,15,823	4,40,557	71 023	44,382	—	4,58,608	3,07,821	—
1947-48	25	5,033	26,37,253	7,81,431	81,152	22,350	—	9,62,468	15,62,217	2,938
1948-49	25	5,610 70	17,79,213 —	9,55,548 —	54,531 —	34,369 —	— —	13,35,691 60,794	11 72,936 46,411	4,224 —
1949-50	31	6,772	14,60,846	10,73,204	40,927	26,948	26,400	18,17,390	8,17,88,794	4,273
1950-51	34	8,629	18,94,477	14,15,027	82,763	29,331	26,500	905,828	32,68,520	—
1951-52	34	9,164	27,74,312	18,17,193	45,153	3,47,720	—	9,91,348	23,84,758	—
1952-53	35	8,820	24,06,941	18,05,861	—	75,721	33,856	18,93,231	22,37,899	2,184
1953-54	36	9,362	28,68,430	21,24,509	1,22,174	1,17,726	30,274	30,11,754	23,88,499	7,957
1954-55	35	9,833	28,41,952	20,51,632	1,11,977	81,367	28,682	24,25,654	42,32,259	11,4 5

TABLE No, 7 (Ccntd.)

Year	Share capital 12	Reserv Fund 13	Other Funds 14	Working Capital 15	Profit (+) or loss (—) for the year 16	Most usual rate of interest	
						On borrowing Percent 17	On lendings Percent 18
	Rs.	Rs.	Rs.	Rs.	Rs.		
1938-39	2,59,051	71,794	48,021	11,89,675	+ 18,285	4	9-3/8
1947-48	3,87,810	1,23,238	1,05,127	31,66,148	+ 33,806	1/2 to 4	4 to 9 3/8
1948-49	4,64,705	1,49,910	1,05,992	32,67,827	+ 46,042	—	—
	61,213	70	—	1,68,488	— 929	—	
1949-50	6,18,050	1,69 920	1,22,391	45,74,166	+ 48,745 — 4,542	1/4 to 4	7-13/16
1950-51	7,25,614	1,82,892	1,29 959	52,68,544	+ 77, 859 — 817	1 to 5	6-1/4 to 9-3/8
1951-52	8,37,515	2,10,217	2,02,998	49,74,556	+ 96,049 — 1,106	1 to 5-1/2	5 to 9-3/8
1952-53	9,06,925	2,30,041	1,92,350	55,72,207	+ 84,774	1/2 to 5-1/2	4-1/2 to 9-3/8
1953-54	9,77,635	2,52,413	2,16,812	70,03,080	+ 95,846 — 711	1-1/2 to 5-1/2	4-1/2 to 9-3/8
1954-55	10,64,515	2,77,644	2,25,290	83,46,866	+ 1,11,351 — 82	1/4 to 5	4-1/2 to 9-3/8

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COMMUNAL SOCIETIES.

The number of societies has risen from 23 in 1938-39 to 35 in 1954-55. Loans increased from Rs. 8,15,823 in 1938-39 to Rs. 18,94,477 in 1950-51 and to Rs. 28,41,952 in 1954-55. Working capital recorded a phenomenal rise from Rs. 11,89,675 in 1938-39 to Rs. 83,46,866 in 1954-55. The working capital per society works out much higher in the case of urban societies than in that of rural societies. One more feature of sharp contrast is the practically full independence of the urban societies of any loans from the central financing agency. Most of their working capital comes by way of deposits from members and non-members, which, in 1950-51, totalled Rs. 41,74,348 and Rs. 66,57,913 in 1954-55 which in both cases is just a shade below 80 per cent. of working capital.

URBAN BANKS.

These are urban societies in essence but the difference is that they do banking business, i.e., "accepting of deposits of money on current account or otherwise subsequent to withdrawal by cheque, draft or order", and have a paid-up share capital of not less than Rs. 20,000. Since the resources of both urban banks and societies consist of short-term and demand deposits, they are advised to advance only call loans and short-term loans and refrain from making investment in immovable property.

In Broach district there were five such urban banks in 1938-39 viz.,

1. The Amod Nagarik Co-operative Bank Ltd.
2. The Ankaleshwar Nagarik Sahakari Bank Ltd.
3. The Broach Urban Bank Ltd.
4. The Gujarat Brahma Kshatriya Urban Co-operative Bank Ltd. and
5. The Jambusar People's Co-operative Bank Ltd.

By 1945-46, however, two of the banks, viz., the Broach Urban Bank Ltd., and the Gujarat Brahma Kshatriya Urban Cooperative Bank Ltd., ceased to be "banks" as their working capital fell below Rs. 20,000. The integration of the former Rajpipla State into the district in 1948 added one more bank, viz., Rajpipla Nagarik Sahakari Bank Ltd., thus raising the number to four in 1948-49. The number increased to seven in 1950-51 when a new bank viz., the Hansot Urban Co-operative Bank Ltd., was registered and the Broach Urban Co-operative Bank was declared as an urban bank, its working capital having crossed the prescribed minimum of Rs. 20,000.

The following table sets out the working of the banks in the Broach district for 1938-39 for 1947-48 and for subsequent years.

TABLE No. 8

Operations of Urban [sic] *Co-operative Banks (Broch District)*

Year	No. of Societies	No. of Members	Loans made during the year to Individuals	Loans due at the end of the year by individuals	of which overdue	Loans held at the end of the year from		Deposits held at the end of the year from		
						Provincial or Central Banks.	Government	Members	Non-Members	Societies
1	2	3	4	5		7	8	9	10	11
			Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.
1938-39	5	1,730	6,00,213	2,56,893	62,290	30,353	—	4,27,014	2,87,075	—
1947-48	3	2,033	22,80,587	4,49,873	23,508	—	—	8,95,280	14,83,415	2,938
1948-49	(3 (1	2,356 70	13,57,297 —	5,75,735 —	17,393 —	100 —	— —	12,07,786 60,794	45,567 146,411	4,224 —
1949-50	4	2,941	8,81,999	6,00,007	28,507	—	—	16,52,081	17,09,640	4,273
1950-51	6	3,963	13,95,307	9,36,773	62,180	—	—	7,80,645	32,05,629	—
1951-52	6	4,221	20,62,924	31,66,249	65.214	2,52,118	—	8,77,001	22,92,418	—
1952-53	6	4,447	17,26,316	11,33,496	60,217	—	—	17,47,801	21,56,875	1,206
1953-54	7	5,005	20,74,937	13,90,018	1,00,209	18,598	—	29,11,136	23,06,084	—
1954-55	7	5,403	20,55,220	12,60,700	1,03,837	—	—	23,12,891	41,45,839	1,014

Year.	Share capital paid-up	Reserve Fund	Other Funds.	Working Capital	Profit (+) or Loss (—) for the year.	Most usual rate of interest on	
						Borrowings percent	Lendings percent
	12	13	14	15	16	17	18
	Rs.	Rs.	Rs.	Rs.	Rs.		
1938-39	1,26,065	42,386	39,415	9,47,308	+ 11,265	1-1/4 to 4-1/2	3-1/2 to 9-3/8
1947-48	1,29,705	66,778	92,072	26,70,188	— 1,246	1-1/4 to 2-1/4	4 to 9-3/8
1948-49	(1,70,015 (61,213	89,930 70	90,997 —	27,08,619 1,68,488	+ 22,120 + 29,602 —	1/2 to 3 1/4 to 2	4-1/2 to 9-3/8 6
1949-50	2,79,540	1,04,998	1,07,104	38,57,636	+ 28,783 —1,518	1/2 to 4	6 to 9-3/8
1950-51	3,45,710	1,18,911	1,16,242	45,67,137	+ 51,137	1/4 to 4	6 to 9-13/16
1951-52	3,76,215	1,39,479	1,74,238	41,11,469	+ 60,233 —610	1/2 to 4	6 to 7-1/2
1952-53	3,95,835	1,51,967	1,61,535	46,15,219	+ 56,937	1/2 to 4-1/2	6-1/4 to 9-3/8
1953-54	4,44,455	1,80,265	1,89,137	60,49,675	+ 67,106	1-1/2 to 4-1/2	4-1/2 to 9
1954-55	4,83,150	1,99,661	1,99,875	73,42,430	+ 81,644	1/4 to 4-1/2	4-1/2 to 7-13/16

It is obvious from the table that the urban banks, like the urban societies, derive their working capital mostly in the form of deposits from members and non-members, the deposits amounting to Rs. 64,58,730 as compared to the total working capital of Rs. 73,42,430 in 1954-55. Thus the non-agricultural societies are almost self-sufficient in their working resources without the necessity of resorting to the financing agency.

DISTRICT CENTRAL CO-OPERATIVE BANK.

District Central Co-operative Bank:—The Co-operative Credit Societies Act of 1904 did not contain provisions for any federal or central societies and the primary societies obtained financial accommodation either from Government or from urban societies. Experience however, showed the need for an intermediate agency and provision was made for the creation of such an agency in the Act of 1912. Such an agency is of supreme importance as a vital link between the apex institution and the farflung primary units. It would not only finance societies but would also endeavour to serve as a balancing centre, accepting the surplus funds of one society at a fair rate of interest and transferring them to another which requires more capital than it has got.

Conceived as such, the central bank should be purely a federation of societies, but it has been thought desirable that it should have a mixed constitution having as its members both societies and individuals. It also admits by way of nominal members (*a*) those residents of a district who are members of primary societies other than urban banks and sale societies and (*b*) persons whose debts are under examination by Debt Adjustment Boards for adjustment or whose debts have been adjusted under the Bombay Agricultural Debtors' Relief Act and who are not members of any society dispensing credit.

Members falling in category (*a*) may obtain loans against agricultural produce and valuables while those falling in category (*b*) may be granted crop finance against agricultural produce and valuables. The nominal members have just to pay an entrance fee of Re. 1/- but they have no right to vote.

The *raison d'etre* of the bank is to finance the primary societies within the area of its operations as its role of a balancing centre is insignificant in the absence of any considerable surplus resources with the societies. The societies are financed more or less on the basis of the detailed statement of normal credits of members prepared by them. Loans or maximum credits are sanctioned by the central bank on the basis of the total requirements of the society as applied for.

Like other societies, the funds of the bank consist of (*i*) share capital (*ii*) reserve and other funds (*iii*) deposits current, savings and fixed, from the societies and the general public, and (*iv*) loans or overdrafts from banks.

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DISTRICT CENTRAL CO-OPERATIVE BANK.

Organised as they are on the principle of limited liability, the central banks have to raise their initial capital by issue of shares. The member societies have to buy the shares, sometimes in proportion to their borrowings. Share capital and reserve funds form the major portion of owned capital on the basis of which deposits are tapped and loans raised. As for the banks' capacity to borrow from outside, rule 8 of the Bombay Co-operative Societies Rules, 1927 enjoins that no society with limited liability may incur liability exceeding, in total, eight times the total amount of its paid-up share capital, accummulated reserve fund, and building fund *minus* the accumulated losses. In the case of the central bank, however, gilt-edged securities owned by them up to an amount equal to twice the paid up share capital are allowed to be excluded in calculating the liabilities provided that the said securities are deposited with the Provincial Co-operative Bank.

A major portion of the working capital is derived from deposits, current, savings and fixed; they are all short-term deposits. The banks may also accept deposits from local bodies subject to the condition that the total of such deposits should not exceed twice the owned capital. These deposits may be supplemented by loans from the apex bank on the central bank's general assets or on any other security. Most of the central banks, however, have been able to tap local resources so considerably as to be independent of financial assistance from the apex bank, and yet to have some funds seeking profitable investment. The banks also generally have overdraft arrangements with the apex bank or the State Bank to be drawn upon for exchange business or for other needs.

To enable the banks to find an outlet for their surplus funds, they are allowed to do urban banking business subject to certain limitations and without prejudice to the interests of agricultural societies. They also undertake all banking business i.e. collection and discounting of bills, opening of current accounts, purchase and sale of securities and issue of cheques and drafts, etc.

Wherever multi-purpose or sale societies cannot be organized and worked successfully, the central banks have been advised to make arrangements for the sale of agricultural produce particularly of agriculturists coming within the purview of the Bombay Agricultural Debtors' Relief Act and allowed to become nominal members for obtaining crop finance.

The Broach District Central Co-operative Bank was registered and started functioning in 1907. Then it was not a central financing agency. This role was entrusted to it only after provision was made for the institution of central financing agencies in the Co-operative Societies Act of 1912. Till then it functioned as the Broach District Co-operative Urban Trading and Banking Society Ltd. In the first year of its career the Bank had a membership of only 39 individuals and its working capital amounted to Rs. 13,000 and the turnover of

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Finance.
District Central Co-operative Bank.

loan operations to Rs. 18,000 only. It will be found from the following table that having started with such a modest beginning, the Bank has recorded considerable progress during the last four decades or so. As contrasted with its membership of 39 individuals and working capital and advances of Rs. 13,000 and Rs. 18,000 respectively in the first year of its operations, it had in 1954-55 a membership of 1,635 individuals and 388 societies and had a working capital of Rs. 1,35,77,366 and total advances amounting to Rs. 1,34,99,543.

The following table indicates the nature and magnitude of operations of the Broach District Central Co-operative Bank for the last few years.

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DISTRICT CENTRAL CO-OPERATIVE BANK.

TABLE No. 9

Operation of Broach District Central Co-operative Bank Ltd., Broach

Year	No. of Members: Individuals	No. of Members: Banks and Societies	Loans advanced during the year to Individuals: No.	Loans advanced: Individuals: Amount	Loans advanced: Banks and Societies: No.	Loans advanced: Banks and Societies: Amount	Loans due at the end of the year by Individuals: No.	Loans due: Individuals: Amount	Loans due: Banks and Societies: No.	Loans due: Banks and Societies: Amount	Of which overdue: Individuals: No.	Of which overdue: Individuals: Amount	Of which overdue: Banks and Societies: No.	Of which overdue: Banks and Societies: Amount
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
				Rs		Rs		Rs		Rs.		Rs.		Rs.
1938-39	798	196		—		4,01,965		1,50,000		5,54,560				—
1947-48	931	238		6,06,745		64,13,724		1,33,605		8,28,751				*1,000
1948-49	1,020	281		95,017		1,27,58,950		2,16,319		39,12,018				*3,200
1949-50	1,079	307	49	36,960	251	84,26,703	34	1,25,117	225	24,57,030	1	200	2	9,150
1950-51	1,530	329	55	66,689	275	1,20,57,014	36	1,41,290	250	29,57,165	1	1,352	2	17,026
1951-52	1,586	348	41	35,195	282	1,56,27,423	29	1,59,861	280	46,09,416	6	12,304	4	18,108
1952-53	1,606	354	35	9,120	327	1,18,73,725	18	1,36,578	276	38,35,521	4	21,793	4	28,995
1953-54	1,625	382	32	5,812	322	1,56,18,468	23	86,188	253	38,44,536	2	739	9	57,124
1954-55	1,635	388	250	14,10,270	352	1,25,89,273	15	33,364	267	41,57,332	2	631	8	45,55[illegible]

Year	Deposits from Co-operative Banks	Deposits from Primary Societies	Deposits from Individuals and other sources	Share Capital Paid-up	Reserve Fund	Other Funds	Working Capital	Profit(+) or loss(—) for the year	Most usual rate of interest on Borrowings percent	Most usual rate of interest on Lendings percent
	16	17	18	19	20	21	22	23	24	25
	Rs	Rs	Rs.	Rs	Rs	Rs.	Rs.	Rs.		
1938-39	—	1,63,279	9,42,064	2,67,600	1,10,548	1,00,948	25,84,439	+ 35,839	1/2 to 2-1/2	3 o 6
1947-48	31,207	9,14,083	40,39,850	2,57,100	1,70,520	1,39,531	55,52,596	+ 41,798	1/4 to 2	4
1948-49	10,64,358	8,54,296	32,02,923	2,72,200	1,86,284	1,39,871	57,19,932	+ 43,888	1/4 to 2	4
1949-50	7,687	23,01,447	47,71,042	5,10,600	1,97,560	1,59,434 } 31,936 }	79,79,706	+ 54,275	1/4 to 2-1/4	4
1950-51	3,55,198	22,68,062	47,69,608	6,46,400	2,30,062	1,85,370 } 34,006 }	84,88,706	+ 74,127	1/4 to 2-1/4 1-1/4 to 3	4 to 5
1951-52	7,099	12,12,547	37,43,067	8,61,500	2,50,568	2,08,938	88,19,975	+ 90,502	1/4 to 2-1/2	4
1952-53	7,560	17,62,776	44,07,833	10,03,000	2,73,636	2,10,225	85,06,281	+ 90,257	1/4 to 2-1/2	4
1953-54	17,255	35,25,311	57,44,132	11,04,400	2,96,482	2,19,475	1,15,56,911	+ 1,27,007	1/4 to 2-1/2	4
1954-55	25,805	47,30,15[illegible]	69,90,364	12,00,100	3,28,518	2,39,572	1,35,77,366	+ 1,46,236	1/4 to 2-1/2	4

*This figures represents Loans overdue both by Individuals as well as Banks and Societies.

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DISTRICT CO-OPERATIVE BANK.

The Bank had in 1938-39, 798 individuals and 196 societies as members. The numbers increased in 1954-55 to 1,635 and 388 respectively. The loans advanced to individual members amounted to Rs. 14,10,270 only in 1954-55, as against those to banks and societies which totalled Rs. 1,25,89,273 and this was in keeping with the Bank's role as a central financing agency. The working capital increased from Rs. 25,48,439 in 1938-39 to Rs. 1,35,77,366 in 1954-55. The bulk of it came by way of deposits from individuals and primary societies which accounted for Rs. 1,17,20,515 of the total working capital of Rs. 1,35,77,366 in 1954-55.

The lending rates of the bank are fixed from time to time, but the Bank has to advance loans to the agricultural primaries at rates of interest not exceeding 4 per cent for agricultural purposes in order to enable them to advance loans to the agriculturists at a rate not exceeding 6¼ per cent. The last column of the table shows that the most usual rate charged by the Bank is in the neighbourhood of the prescribed rate.

JOINT STOCK BANKS.

Joint Stock Banks :—There were only five joint-stock bank offices in the district in 1957 and all of them were branch offices of banks having their registered offices outside the district. The names of the banks and the location of their offices are given below:—

(1) State Bank of India, Broach
(2) The Central Bank of India Limited, Broach
(3) The Devkaran Nanjee Banking Company Ltd., Broach
(4) The Bank of Baroda Ltd., Rajpipla
(5) State Bank of India, Jambusar.

The first bank to start banking business in the district was the Bank of Bombay which opened its branch office at Broach as far back as 1868. In 1921, when the Imperial Bank of India was constituted by the amalgamation of the three Presidency Banks namely the Bank of Bombay, the Bank of Madras, and the Bank of Calcutta, the branch-office of the Bank of Bombay was converted into the branch-office of the Imperial Bank of India. The other three scheduled banks, namely, the Devkaran Nanjee Banking Company Limited, and the Central Bank of India Limited, established their branch offices at Broach in 1946 and 1949 respectively and the Bank of Baroda Ltd. established its branch-office at Rajpipla in the year 1956. The State Bank of India opened its branch at Jambusar in 1957.

The main business of these banks is to attract deposits current, fixed and savings and to finance mainly the movement of cotton, oil-seeds, etc. from the villages to the exporting centres of the district having good transportation facilities with the consuming centres and markets and from these exporting centres to different destinations. They finance this movement by giving short-term advances against easily realisable securities, by opening cash credits and by discounmland bills of exchange.

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Finance.
JOINT STOCK BANKS.

Since the economy of the district is characterised by the predominance of cash-crops in general and cotton crop in particular, the prosperity of the district is inextricably bound up with the vicissitudes of the cotton crop and the conditions of cotton trade. The conditions of cotton trade and crop are in turn, reflected partly in the variations in the nature and magnitude of the operations of these banks.

The main business of these banks is, therefore, confined mainly to negotiation of bills representing movement of cotton and accommodation to approved ginning factory owners. These banks cater mainly to the financial requirements of the ginning factories and other persons and concerns connected with cotton trade. They offer seasonal accommodation for about four months for the movement of the principal crops of the district, viz., cotton, cottonseeds and lang. Nearly 90 per cent of their total advances are given to finance the cotton trade of the district. These advances are generally made to approved ginning factory owners who are in a position to give tangible and marketable securities such as Government and Trustee securities and shares of joint stock companies. This is clearly brought out by the fact that as much as 72.9 per cent of the total secured advances were made against these securities and shares (vide Table No. 14 on page No. 376). The advances made against agricultural commodities which mainly consist of cotton, stand next in importance, although its proportion to total secured advances, viz., 25.07 per cent, is considerably lower than that of the advances secured by the above-mentioned securities and shares. The percentage of unsecured advances to total advances is 19.3. These advances are either made against trade bills or are clean advances either supported by the guarantee of the borrowers only or supported by the guarantee of other persons also.

The figures in Table No. 13 show that as much as 91.06 per cent or Rs. 92,19,000 of the total advances of Rs. 1,01,23,424 were made to industries. This unusually high percentage of advances to industry is rather misleading because these are not made against industrial block as such but are short term advances against different types of securities to ginning factory owners. These advances are classified as allowed to industries according to the principal activity of the borrowers which is mainly concerned with ginning and pressing industry. By adding the advances allowed to commerce to those allowed to industries, we get a total of Rs. 96,80,000. This amounts to nearly 95.6 per cent of the total advances. Very nearly the whole of these advances are used for financing the cotton trade of the district. This, therefore, leads us to the conclusion that the operations of these banks are geared to the requirements of the cotton trade upon which the economic well-being of the district so largely depends.

The Tables No. 10, 11 and 12 give a consolidated statistical account of the pattern and magnitude of various types of deposits attracted by these bank-offices in the district from different economic groups. The total deposits with these banks as on 31st December 1956 were Rs. 83,36,993. Table No. 10 shows a consolidated account of the demand deposits with these banks. Out of a total of Rs. 30,59,154, Rs. 6,88,952 or nearly 22.52 per cent of it was to the credit of trading concerns. Nearly 47.96 per cent of the deposits of the trading concerns consisted of accounts of Rs. 10,000 and above.

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TABLE No. 10

OWNERSHIP OF DEPOSITS OF SCHEDULED AND NON-SCHEDULED BANKS
BROACH DISTRICT

Deposits of.	DEMAND DEPOSITS											
	Rs. 10,000 and above		Between Rs. 5,000 and Rs. 10,000		Between Rs. 1,000 and Rs. 5,000		Between Rs. 1,000 and Rs. 500		Below Rs. 500		Total	
	No.	Amounts Rs.	No.	Amounts Rs.	No.	Amounts Rs.	No.	Amounts Rs.	No.	Amounts Rs	No.	Amounts Rs,
I. Manufacturing Concerns	1	15,000	1	8,000	2	3,035	—	—	1	—	5	26,035
II. Trading Concerns	13	3,30,436	14	1,01,095	82	1,86,519	47	31,308	285	39,594	441	6,88,952
III. Personal	8	2,85,000	21	1,45,000	55	1,23,912	38	25,016	179	28,000	301	6,06,928
IV. Others	8	16,28,000	5	34,709	27	70,530	3	2,000	8	2,000	51	17,37,239
TOTAL	30	22,58,436	41	2,88,804	166	3,83,996	88	58,324	473	69,594	798	30,59,154

TABLE No. 11

Ownership of Deposits of Scheduled and Non-scheduled Banks

BROACH DISTRICT

Deposits of	Savings Deposits			
	Rs. 500 and above		Less than Rs. 500	
	Number	Amounts Rs.	Number	Amounts Rs.
I. Business ..	—	—	—	—
II. Personal ..	838	17,69,811	2,033	2,38,308
III. Others ..	7	7,701	1	—
Total ..	845	17,77,512	2,034	2,38,308

TABLE No. 12

Ownership of Deposits of Scheduled and Non-scheduled Banks

BROACH DISTRICT.

Deposits of	Time Deposits					
	Rs. 10,000 and above		Between Rs. 5,000 and Rs. 10,000		Between Rs. 1,000 and Rs. 5,000	
	No.	Amounts Rs.	No.	Amounts Rs.	No.	Amounts Rs.
I. Business	12	12,89,326	3	18,572	6	17,425
II. Personal	62	9,47,169	49	3,07,527	121	2,57,580
III. Others	6	21,42,000	2	11,500	2	6,000
Tot . .	80	43,78,495	54	3,37,599	129	2,81,005

Deposits of	Time Deposits					
	Between Rs. 1,000 and Rs. 5,000		Below Rs. 500		Total	
	No.	Amounts Rs.	No.	Amounts Rs.	No.	Amounts Rs.
I. Business	2	1,000	—	—	23	13,26,323
II. Personal	51	35,141	24	6,291	307	15,53,708
III. Others	—	—	—	—	10	21,59,500
Total	53	36,141	24	6,291	340	50,39,531

TABLE No. 13

Analysis of Advances of Scheduled and Non-scheduled Banks according to purpose.

BROACH DISTRICT

	No. of Accts.	Amounts. Rs.	Percentage to total advances
I. Industry	20	92,19,000	91.06
II. Commerce	77	4,61,000	4.55
III. Agriculture	—	—	—
IV. Personal and Professional	115	3,88,414	3.84
V. All others	2	55,010	0.55
TOTAL	214	1,01,23,424	100 %

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TABLE No. 14

ANALYSIS OF ADVANCES OF SCHEDULED AND NON-SCHEDULED BANKS ACCORDING TO SECURITIES

BROACH DISTRICT

	No of Accts.	Amounts Rs.	Percentage to total advances
Secured Advances—			
(1) Government and Trustee securities ...	42	13,92,092	13.75
(2) Shares of Joint Stock companies etc ...	46	46,62,857	45.07
(3) Gold and Silver Bullion, Gold and Silver Ornaments ...	70		3.31
(4) Merchandise ...	20		20.24
(a) Agricultural Commodities.			
(b) Non-Agricultural Commodities.			
(5) Real Estate	—	—	—
(a) Agricultural land			
(b) Other Properties			
(6) Fixed Deposits...	9	31,427	0.31
(7) Other secured advances ...	1	1,000	0.01
TOTAL ...	188	81,71,376	80.71
II. Unsecured Advances	26	19,52,048	19.29
TOTAL OF I AND II	214	1,01,23,424	100·/.

In addition to the usual modern banking facilities, a Safe Deposit Vault has been installed at the Broach Branch of the State Bank of India since 1940. There is neither a clearing house nor any Bankers' Association in the district.

In the absence of a clearing house, however, the daily exchange and settlement of debits and credits of all the local banks are effected by a system of clearing accounts by giving cheques drawn on the State Bank of India, with whom all these banks keep accounts, in payment of balances due between the banks.

Agencies for Mobilisation of Savings.

Agencies for Mobilisation of Savings:—The foregoing sections describe at length the nature and functions of such credit agencies as moneylenders and indigenous bankers, co-operative credit societies and banks and the joint-stock banking companies. While the first two have been mainly purveyors of credit, the latter, in addition,

JOINT STOCK BANKS.

receive deposits of various kinds and do other banking business. They have no doubt a great share in the mobilisation of public savings, but the latter is one of their other equally important functions. There are, however, other agencies which either exclusively aim at tapping public savings or mobilise savings as a result of their other activities which are not necessarily and strictly banking in nature. Such agencies include insurance companies and societies, Postal Savings Banks, National Savings Certificates, and Government Treasury Deposits. The State and local authorities and the private industrial concerns also occasionally mop up a portion of public savings through the issue of securities, loans and shares. But the study of this part of mobilisation of savings has not been attempted here.

Agencies doing Insurance Business.

The most important development that has taken place recently in the field of Indian Insurance was the nationalisation of life insurance business in India. From the 1st September, 1956, all Indian insurers and provident societies ceased to carry on life insurance business anywhere, while all foreign insurers ceased to carry on life insurance in India. The existing life insurance business-entire business of Indian insurers-and provident societies, and Indian business of foreign insurers is entrusted with the Life Insurance Corporation of India, which is carrying on life insurance business both in India and outside. However, general insurance which includes fire, marine and other insurance business, is still open to private enterprise. Most of the former insurance companies and societies which used to transact all insurance business including life, have now switched over entirely to general insurance only. Many of those companies which had life insurance as the main business have ceased to exist consequent upon the nationalisation of life insurance business.

Although the Corporation as well as other insurance companies do not transact banking business as such, their transactions are akin to banking in certain respects and they form an important channel for the mobilisation of people's savings. They collect premia which have certain features of term deposits, make loans to policy-holders and invest their funds in Government securities, treasury bills, shares and debentures of joint stock companies, and other types of securities such as debentures of land mortgage banks and other banks, and in real estate, activities which are analogous in many ways to those of banks.

Under the new administrative and organizational set-up of the Life Insurance Corporation, Broach district is placed under the territorial jurisdiction of Surat Division of the Western Zone. However, there is no branch-office of the Corporation in the district under the new set-up.

Neither there are insurance societies and companies which transact business of the above sort in the district. Of course, there might be some commission agents canvassing insurance business of various types, the proposals being finally accepted and the policies issued

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Joint Stock Banks.

by insurance offices either of the Corporation or of other companies outside the district. The business so done is likely to be on quite a considerable scale, but in the absence of any offices in the district, it is not possible to have even a rough estimate of the insurance business in the district. An idea of the employment which insurance business provides, however, can be gathered from the Census of 1951. The Report records that there were in all 32 persons in 1951 classified under the head, "insurance carriers and all kinds of insurance agents and other persons connected with insurance business". It may be safely presumed that most of these were insurance agents canvassing business on behalf of different offices outside the district.

Postal Savings Banks.

Postal Savings Banks:—One of the important agencies for mobilisation of savings, especially small rural savings, for which definite information, is available is the Postal Savings Banks. These banks are particularly suited to the collection of savings in the rural areas. As an agency of Government, they enjoy the confidence of the public which is specially valuable in areas where the banking habit is not fully developed or in times when, for any reason, there is a certain amount of mistrust about banks. They provide a large net-work of offices spread out in the country and are also capable of being developed without considerable expenses. Savings bank activity constitutes one of the many functions of the post-offices and can, therefore, be carried on economically, which is not possible in the case of other banking institutions.

In the year 1957, there were 76 offices of all sorts doing savings bank work in the Broach district. These include a Head Office at Broach, 59 branch offices and 16 sub-offices. The distribution of office according to talukas is as follows:—

	Taluka.		*No. of Offices.*
1.	Broach	...	21
2.	Amod	...	8
3.	Ankaleshwar	...	7
4.	Jhagadia	...	8
5.	Valia	...	4
6.	Rajpipla	...	6
7.	Dediapada	...	1
8.	Jambusar	...	13
9.	Vagra	...	4
10.	Hansot	...	2
11.	Sagbara	...	—
	Total	...	74

Postal Savings Banks.

Information regarding the location of other two offices is not available.

The following table sets out the changes in the number of savings banks accounts and the amounts invested as at the end of the financial year since 1949. It may be noted that the number of accounts recorded an increase from 11,618 to 14,104, i.e., by 21.4 per cent and the investments shot up from Rs. 77,75,189 to Rs. 92,56,544, i.e. by 19 per cent through the four years from 1949 to 1953. The position, however, has not undergone much change since then through the last four years as it is evident from the figures for the latest year 1957. The increase recorded in that year with respect to the total number of savings bank accounts and total amount invested therein as at the end of the financial year, as compared to that of 1953 is negligible and insignificant.

TABLE No. 15

Date.	*Total number of Savings Bank Accounts under Broach Head Office.*	*Total amount invested at the end of the financial year.*
		Rs. PAs .0
31-3-1949	11,618	77,75,189-12-0
31-3-1950	12,705	80,79,515- 4-8
31-3-1951	13,376	90,59,313- 1-8
31-3-1952	14,058	92,88,756-18-6
31-3-1953	14,104	92,56,544- 1-0
31-3-1957	14,149	93,16,075- 9-0

National Savings Scheme.

National Savings Schemes:—The governmental schemes for mobilisation of small savings from all strata of the population came into prominence during the war and the post-war years. However, the roots of such schemes reach as far back as the first world-war. During the war of 1914-18 the then Government initiated the National Savings Scheme through the issue of Postal Cash Certificates. These certificates were for five years, seven years and ten years and were sold at a discount and repaid after the completion of the maturity period at par, i.e., for Rs. 10, 50, or 100 as the case may be. The margin of discount was variable and changed accordiing to variations in the price of a certificate. From the evidence of the then Post-Master General before the Provincial Banking Enquiry Committee, it is observed that the price varied from Rs. 7-8-0 to Rs. 8 between 1927 and 1929. The rate of interest earned and the sales varied accordingly, but obviously in opposite directions.

On a cash certificate purchased at Rs. 7-8-0, for example, if kept till maturity the rate of interest was Rs. 6-10-0 at simple interest and Rs. 6 at compound interest. Both bankers and money-lenders complained that because of this high rate of interest money in the district was drained to Government and was not available for trade

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and allied economic activities of the district. Some co-operators also supported the view that they could not attract deposits from the middle and lower classes in the urban area because of the high rate earned on cash certificates. So the opinion of the witnesses ranged from the reduction in the rate of interest on and sale of certificates to their complete stoppage. The Government, however, continued the sale of certificates and they were quite popular with "the petty trader, the petty contractor, private servants, Government servants and professional men". The ryot, however, could not much avail of them, not so much perhaps because of the difficulty of purchasing and preserving the certificates and encashing on maturity, as because of lack of money to invest.

Subsequently in 1943 when the second world war was being intensified, the then Government started, what have now become well-known, the Post Office National Savings Certificates. These are of different periods of maturity, but among them the most popular are those for 12 years. The latter fetch an interest at the rate of 4⅙% of simple interest on maturity, i.e., Rs. 100 becomes Rs. 150 at the end of 12 years. The interest earned on these certificates is free of income-tax. Five-year and seven-year series also were subsequently introduced and were encashable in the event of the purchaser being in need of money. The five-year certificate fetched interest at 3% and the seven year at 3-4/7%, i.e., in one case Rs. 100 became Rs. 115 at the end of five years and Rs. 125 in other case after seven years. Provision is also made in the scheme for minimum investment of As. 4 in the form of National Savings Stamps, and, when the total value of the stamps amounts to Rs. 5, they can be converted into five-rupee National Savings Certificates. Thus even the poorests have been enabled to help Government mobilise the smallest savings in the economy.

The following table shows the amounts of savings invested in the certificates of different maturities in the district and the corresponding amounts discharged during the last seven years:—

TABLE No. 16

Year.		*National Savings Certificates issued.*			*National Savings Certificates discharged.*		
		5-Year.	*7-Year.*	*12-Year.*	*5-Year.*	*7-Year.*	*12-Year.*
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1949-50...	...	23,950	30,970	9,15,115	6,945	325	2,39,264
1950-51...	...	43,185	10,250	12,90,130	8,395	1,140	2,16,990
1951-52...	...	10.560	1,340	14,57,515	3,577	1,538	3,37,996
1952-53...	...	1,110	2,600	12,56,000	7,659	371	3,59,926
1953-54...	...	2,345	5,885	11,67,785	3,277	1,608	3,96,810
1954-55...	...	...	2,705	12,85,425	5,709	525	3,07,760
1955-56...	...	...	2,015	8,38,880	842	8,910	4,60,592

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It is obvious from the table that the 12-Year certificates are the most popular and the amounts invested in them are by far the largest.

However, the Government of India have discontinued with effect from 1st June, 1957, the 7-Year and 12-Year National Savings Certificates and from the same date a new series of 12-Year National Plan Savings Certificates has been introduced replacing all the earlier series including the 10-Year National Plan Certificates. The issue of 5-Year National Savings Certificates was discontinued from the year 1954.

The introduction of the new series marks the intensification of the drive for small savings consequent upon the realisation on the part of the Government that taxation and borrowing have reached their saturation point in this country and that small savings alone can meet on a larger scale the ever-increasing needs of capital resources for the implementation of our Five-Year plans provided sufficient inducements and facilities are offered to the public at large.

The new certificates carry a higher rate of interest yielding on maturity a return of 5.4 per cent. per annum simple interest and 4.25 per cent. per annum compound interest, free of income-tax. An investment of Rs. 100 in the new certificates will increase to Rs. 165 after 12 years as compared to Rs. 150 on the former 12-Year certificates. The surrender value of the certificates, if encashed prematurely, will be Rs. 116 at the end of five years, Rs. 127 at the end of seven years and Rs. 148 at the end of 10 years. The new certificates will be encashable any time after the completion of 12 months from the date of issue. The former 12-Year National Savings Certificates carried a non-encashability period of 18 months. The certificates are available at all post-offices conducting savings bank business in denominations of Rs. 5, Rs. 10, Rs. 50, Rs. 100, Rs. 500, Rs. 1,000 and Rs. 5,000. The maximum holdings permissible remain the same as that in the case of the National Savings Certificates i.e., (a) Single holder — Rs. 25,000 and (b) Joint holders — Rs. 50,000.

The Government Treasury Savings Deposits Scheme is another opening for the canalisation of public savings for nation-building activity. It was started in 1951. The deposits issued through the offices of the Reserve Bank of India, State Bank of India, doing treasury work and the treasuries and sub-treasuries are due to mature in 1961 i.e., ten years after the initial issue and bear interest at 3½ per cent. per annum. Interest is paid annually on the completion of each period of twelve calender months from the date of deposit. If the deposits are withdrawn before maturity no interest is allowed for any period less than a year. It is not liable to income-tax and is not also taken into account in calculating the income of the holder for purpose of income-tax.

The deposits are repayable at par on the expiry of ten calendar years from the date of deposit. At the option of the depositors, the

CHAPTER 7. — Finance. — National Savings Scheme.

deposits are refunded at any time after the expiry of one year, after deducting a discount at a graded rate, the latter decreasing as mutu-rity approaches. The deposits are multiples of 100 only with a ceiling on the maximum amount that may be invested, the ceiling varying according to the nature of the holder.

The treasury officer, Broach, has stated that the number of Treasury Savings Deposit Certificates enfaced for payment of interest from Broach District Treasury was 309 pieces amounting to Rs. 7,23,000 by the end of 1953. The amounts received for the purchase of the certificates both at the Broach branch of the State Bank of India as well as at the Sub-treasury in the district for the last five years are given below in the tabular form.

TABLE No. 17

TOTAL SUBSCRIPTIONS TO THE TEN-YEAR TREASURY SAVING DEPOSIT CERTIFICATES

Year.	*Subscriptions to Treasury Savings Deposit Certificates received at*		Total.
	State Bank of India.	*Sub-Treasuries.*	
1	2	3	4
	Rs.	Rs.	Rs.
1951	4,00,300	—	4,00,300
1952	1,63,100	19,000	1,82,100
1953	2,08,400	75,700	2,84,100
1954	1,05,400	42,000	1,47,400
1955	1,14,100	20,900	1,35,000
1956	53,000	14,000	67,000
Total	10,44,300	1,71,600	12,15,900

Thus, it can be seen from the table that total subscriptions to the Treasury Savings Deposit Certificates from 1951 to 1956 amounted to Rs. 12,15,900.

Total repayment in respect of 3½ per cent. Treasury Savings Deposit Certificates tendered for refund in cash before maturity at the Public Debt Office, Reserve Bank of India, Bombay, upto February, 1957, amounted to Rs. 13,500.

With a view to providing further inducement to the public to invest in the Treasury Savings Deposit Certificates, the Government of India have from July, 1957, introduced new Treasury Savings Deposit Certificates bearing 4 per cent. interest per annum.

15 Years Annuity Certificates.

This scheme serves two purposes. It provides a safe, secure and a profitable avenue for investment of accumulated savings of a person

and also ensures a regular monthly income to him and his family in the form of fixed monthly instalments for a period of 15 years from the date of issue of the certificates.

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The issue prices of the certificates are Rs. 3,500, Rs. 7,000, Rs. 14,000 and Rs. 28,000 and monthly instalments that are paid out to the holders are of Rs. 25, Rs. 50, Rs. 100 and Rs. 200 respectively. Thus the amounts invested in these certificates are returned together with a compound interest of 3½ per cent. per annum in the from of monthly instalments lasting for fifteen years. The income in the form of monthly instalments is not liable either to income-tax or to super-tax and it is not also taken into account in computing the total income of the holders for the purpose of income-tax. The maximum amount which can be invested in these certificates by an individual is Rs. 28,000/- and jointly by two persons is Rs. 56,000/-.

The amount invested in these Certificates in the district in the year 1955 was Rs. 14,000/- and that in 1956 was Rs. 7,000/-.

The Union Government introduced a second series of 15-year annuity certificates from January, 1958 as a part of the general policy of intensifying the small savings drive by offering more liberal and advantageous terms and facilities to the prospective investors under various small savings schemes. The issue of the certificates under the first series was discontinued from the close of business on December 30, 1957.

Under the new series, the amounts invested in these certificates yield approximately a compound interest of 4.25 per cent. per annum as compared to 3.5 per cent. compound interest per annum under the first series. Thus an investment of Rs. 3,325, Rs. 6,650, Rs. 13,300 and Rs. 26,600 in the new certificates secures to the holder a monthly income of Rs. 25, Rs. 50, Rs. 100 and Rs. 200 respectively for a period of 15 years. The maximum amount that can be invested in these certificates is Rs. 26,600 for an individual and Rs. 53,200 for two persons jointly.

Government Finance to Agriculture and Industry.

I. *Government Finance to Agriculture.*

Government Finance to Agriculture

Government finance is made available to agriculturists under two Acts, viz., (1) the Land Improvement Act, 1883, and (2) the Agriculturists' Loans Act, 1884. Loans under the "Grow More Food" schemes are also covered by either of these Acts. Apart from sanctioning loans under the above-mentioned Acts, financial aid is also provided in the form of subsidies. As a matter of procedure, the collector is given certain amounts for advancing loans under appropriate budget heads and in conformity with the budget requirements he makes use of the funds placed at his disposal. Brief outlines of various

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schemes along with a reference to procedure and terms and conditions for the sanction of other loans are given below:—

(i) Loans under the Land Improvement Act.

The particular schemes for which loans can be sanctioned under the Act are :

(1) Construction and repairs of wells;

(2) Purchase of oil-engines;

(3) Bunding and other irrigation projects;

(4) Clearance, enclosures, or improvement of land; and

(5) Such other works as the local Government may declare to be improvements for the purposes of this Act.

The Collector, the Prant Officer, and the Mamlatdar are the final authorities for sanctioning these loans subject to various specified limits. The limits upto which these authorities can sanction loans are as follows :—

	Sanctioning Authority.	*Maximum Amount per Loan.* Rs.
1.	Mamlatdars or Mahalkaries	1,000.
2.	Mamlatdars (Specially selected by Collectors)	2,500.
3.	Prant Officer	2,500.
4.	Collector	7,500.

The rate of interest charged is 4½ per cent. where loans are sanctioned for wells and bunding and 5.5 per cent. for loans taken for installation of pumping sets and other purposes under the Act. Some sort of security is also required for availing of Government finance. In the case of wells costing up to Rs. 2,000 about twice the amount of loan is asked for as security and for amounts exceeding Rs. 2,000 the security asked for is approximately three times the value of the amount involved. As regards other schemes, the security is as large as three times the amount of loans asked for.

Loans are generally recovered by regular fixed instalments which also include payment of interest. In the case of wells and bunding, purchase of engines, etc., the period within which repayment is to be made is about ten years.

(ii) Loans under the Agriculturists' Loans Act.

Under this Act, loans may be made to holders (owners and occupiers) of arable lands for (1) purchase of seed, manure, fodder, agricultural stock, implements, and hire of cattle; (2) repairs of houses destroyed by fire, flood or any other calamity; (3) any other purpose not covered by the Land Improvement Act and connected with agricultural objects; and (4) scarcity and famine relief. The

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sanctioning authorities and the maximum amounts per loan which can be sanctioned under this Act are :

	Sanctioning Authority.	*Maximum Amount per Loan.* Rs.
1.	Mamlatdar	200.
2.	Mamlatdars (specially selected by Collector)	500.
3.	Prant Officer	1,000.
4.	Collector	2,500.

The rate of interest charged is 5.5 per cent. and recoveries are made in fixed instalments payable at regular intervals. The loans for seed, etc., are short term loans being payable within one year usually after the harvest. For bullocks and agricultural implements the loans are payable at the end of four years' period. The security required to be offered is approximately three times the amount of the loans involved.

(iii) Loans and Subsidies under the Grow More Food Schemes.

Loans under these schemes are covered under either of the two Acts. Particular mention may be made of the scheme which is working under the Government Resolution No. 924 of 2nd December, 1946, under which the *tagai* loans and subsidies are given either for repairs of old wells or construction of new ones. While loans are sanctioned through the usual channel, the subsidies are granted by the Rural Development Board which is subordinate to the Revenue Department. Subsidies are granted up to Rs. 500 for new wells and Rs. 250 for repairs of old ones. This amount comes to about one-fourth of the total cost involved and in no case the sanctioned amount exceeds the above figure. If the *tagai* loan is already secured and the subsidy is granted thereafter, the amount of subsidy is adjusted against the sanctioned loan.

(iv) Financial Aid under Miscellaneous Schemes.

Apart from the above schemes subsidy is also given in respect of schemes such as rural compost schemes, wells scheme, distribution of improved seeds and manures, Government lift irrigation scheme, soil conservation scheme, mechanical cultivation and boring scheme, land protection scheme, etc. Except for the rural compost scheme, where two or three rupees are given per pit and the wells scheme, no cash is given ; but work is done at a lower cost or seeds and manures are given at subsidised rate by either the agricultural assistants or land assistants, as the case may be.

The following table lays out the details about the loans applied for and sanctioned under the Land Improvement Loans Act and the Agriculturists' Loans Act in the district for three years viz. 1950-51, 1951-52, and 1952-53 respectively.

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TABLE No. 18

TAGAVI LOANS APPLIED FOR AND SANCTIONED 1950-51-1951-52; AND 1952-53

BROACH

Particulars.	Loans sanctioned under					
	land Improvement Loans Act			Agriculturists' Loans A		
	1950-51	1951-52	1952-53	1950-51	1951-52	1952-53
1 No. of applications received ..	914	2,222	5,302	19,347	22,927	8,551
2 Amount applied for Rs.) .	10,02,475	6,91,013	13,72,369	21,10 905	9,84,500	15 ,45,913
3 No. of cases sanctioned	701	2,084	1,933	17,597	18,227	22,767
4 Amount asked for in 3 above (Rs.) ..	5,40,696	4,91,441	9,36,188	14,35 410	7,56,524	12,921
5 Amount actually sanctoined	2,78,480	3,45,196	8,09,943	12,78,303	6,13,619	1033,00
6 Current farm Expenditure	—	—	—	12,78,303	6,13,619	10,33,0
7 Land Improvements	2,78,480	3,45,196	8,09,943	—	—	—
8 Irrigation Project ...	—	—	—	—	—	—

It is obvious that since applications under the Land Improvements Act are for the purposes of land improvement, their number is comparatively smaller than that under the Agriculturists' Loans Act. For the demand for current farm expenditure is paramount and moreover this expenditure has to be incurred under farm improvement which can be postponed or is even neglected. Number of cases sanctioned too, therefore, is proportionally lower under the former than under the latter Act.

As per the proportion of cases sanctioned to cases applied for, it appears from the table that not a large number of applications is rejected. For instance, under the Land Improvement Act, 914 applications were received in 1950-51, of which 701 were considered, i.e., the percentage of the latter to the former works out at 77. The same for 1951-52 is 94 per cent., but for 1952-53 only 36.5%. The corresponding percentages under the Agriculturists' Loans Act are 91, 79.5 and 80 respectively.

Though it seems a relieving feature that not many applications are rejected, (except in 1952-53 under the Land Improvement Loans Act), the fact remains that the entire sum applied for in the sanctioned cases is not granted. For instance, in 1952-53 whereas Rs. 13,72,369 were applied for in 5,302 applications, only 1933 cases were sanctioned involving a demand for Rs. 9,36,188; but out of the latter only Rs. 8,09,943 were actually sanctioned under the Land Improvement Loans Act. Thus the percentage of amounts sanctioned to the total amounts applied for was only 59.

As for loans under the Agriculturists' Loans Act whereas Rs. 15,45,913 were applied for in 1952-53, only cases involving a demand for Rs. 12,92,190 were sanctioned and even of the latter sum only Rs. 10,33,053 or nearly 67% were granted.

The total sums sanctioned under the twin Acts were Rs. 15,56,483 in 1950-51, Rs. 9,58,815 in 1951-52 and Rs. 18,42,996 in 1952-53.

The total loans sanctioned for agricultural finance including the loans granted under the twin Acts during the later years, viz., 1953-54, 1954-55 and 1955-56, information for which was received subsequently, were Rs. 4,01,760, Rs. 5,59,912 and Rs. 4,34,339 respectively.

The following table shows the time-lag between the date of application and the date of sanction in Broach District for the three years 1950-51, 1951-52 and 1952-53 respectively.

TABLE No. 19

TIME-LAG BETWEEN DATE OF APPLICATION AND DATE OF SANCTION OF TAGAI LOAN

Broach

	No. of Loans.		
	1950–51	1951–52	1952–53
1. On the same day	—	—	—
2. Less than one month	16,981	11,782	21,516
3. 1–2 months	1,281	6,598	2790
4. 2–3 months	36	1,901	373
5. 3–4 months	—	30	21
Total ...	18,298	20,311	24,700

The important point to be noted is that a very large portion of the total loans sanctioned were granted within a month of their application for all the three years viz. 1950-51, 1951-52, 1952-53. Of the 18,298 loans sanctioned for 1950-51, 16,981 or nearly 93% were sanctioned within a month; of the 20,311 loans sanctioned in 1951-52, 11,782 or 58% were granted within a month of application and of the total 24,700 cases sanctioned in 1952 53, 21,516 or not less than 87% were sanctioned within a month. Most of the other applications were sanctioned within two months, but no application waited for sanction beyond four months.

The study of time-lag between the date of sanction and the date of disbursement is more encouraging. For it has been reported that all loans sanctioned during the three years 1950-51, 1951-52, 1952-53 were invariably disbursed within a month of their sanction. It thus appears that on an average most of the applications were finally disposed of within two and half months of their initial receipt for loans. This leads us to believe that at least for Broach district and for the years 1950-53 the proverbial red tapism in the sanction and disbursement of *tagai* loans was mostly, if not totally, absent. It is, however, hazardous to generalise similarly about the system of *tagai* loans as a whole on the basis of the limited experience in one district for a few years.

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The following table (No. 20) gives an analysis of loans according to the period for which they are sanctioned in Broach district. It may be noted that in the case of *tagai* loans the period of a loan depends on the purpose of the loan for more often than not it is the latter that governs the period for which the loan is sought. For instance, most of the loans to finance current farm expenditure like purchase of seeds and manure or repairs to implements and wells and *bandhas* are by their very nature short term loans running over a period of 9-12 months. Most of the loans sanctioned under the Agriculturists' Loans Act are of such character and are of the nature of crop finance. The loans sanctioned under the Land Improvement Loans Act, however, as the title of the Act itself connotes, are for some durable improvements in land and hence *ipso facto* of a longer maturity. They might be medium-term loans running over 3-4 years or long-term loans for five or more than five years.

TABLE No. 20

DURATION OF LOANS, BROACH DISTRICT

	No. of Loans sanctioned.		
	1950-51	1951-52	1952-53
1. Less than 3 months	—	—	—
2. 3-6 months	—	—	—
3. 6-9 ,, ...	—	—	—
4. 9-12 ,, ...	3,723	14,777	11,848
5. 1-2 years	782	3,668	11,805
6. 2-3 years	16	1,060	371
7. 3-4 years	12,546	488	276
8. 4-5 years	1,039	223	293
9. 5 years and above	192	95	107
Total ...	18,298	20,311	24,700

It may be noted that except in the year 1950-51 there was a large number of loans for crop finance of a maturity of 9-12 months whereas in 1951-52, 14,777 or nearly 73% of the total loans sanctioned viz., 20,311 were for a period ranging from 9 to 12 months, in 1952-53 the corresponding figure was 11,848 or 48% of the total loans sanctioned viz., 24,700. It seems that in 1951-52 and 1952-53 most of the Loans were for a duration of less than 2 years. Fewer loans were applied for and sanctioned for a period extending beyond 3 years except in 1950-51 when three-fourth of the loans sanctioned were for a period of three years or more For all the years, however, there were very few loans for more than five years. It is, therefore, evident that loans are sought and sanctioned for crop finance and land

improvements of not very enduring nature and not so much for effecting long-term land improvements.

As regards the nature of loans as to their duration for the later years, information for which was received subsequently, it is noticed that out of the total loans advanced viz., Rs. 2,63,855 under the Land Improvement Act during the years 1953-56, Rs. 96,412 or about 36 per cent. were short-term loans i.e., loans granted for a period not exceeding 15 months, Rs. 1,66,843 or about 64 per cent. of the loans consisted of medium and long term loans i.e., loans advanced for a period of more than 15 months. This is quite natural as loans under this Act are granted primarily for the purposes of effecting permanent improvements to land and hence they are generally of a long-term nature. During the same period viz., 1953-56, an amount of Rs. 5,97,200 was advanced under the Agriculturists' Loans Act. Of this Rs. 3,04,940 or about 51 per cent. represented short-term loans, Rs. 1,84,990 or about 31 per cent. medium-term loans and Rs. 1,07,370 or about 18 per cent. represented long-term loans. Thus, the bulk of the loans viz., 81 per cent. of the total sanctioned under this Act comprised of short-term and medium-term loans. This is so as it could be expected, since loans under this Act are granted primarily for current agricultural needs.

Loans that are not sanctioned are quite a few and are rejected on various grounds. The following table gives an idea of the number of loans not sanctioned during the three years from 1950 to 1953 and the various reasons therefor.

TABLE No. 21

REASON FOR REJECTION OF LOANS BROACH

	No. of Loans.		
	1950-51	1951-52	1952-53
1. Lack of security or adequate security	1,358	387	382
2. Purpose of Loan not approved ...	15	45	45
3. Old dues to Government	5	112	127
4. Miscellaneous	585	4,294	8,599
Total ...	1,963	4,838	9,153

It appears that a loan was rarely rejected on the ground that its purpose could not be approved. So also it was not often that an application was turned down because the applicant owed old dues to Government. Lack of security or adequate security, however, was a major ground for rejection and was next only to rejection for miscellaneous reasons. The total number of applications rejected on all

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grounds itself formed quite a large portion of the total applications for loans. For example, in 1951-52 of the 25,149 applications received 4,838 or nearly one-fifth were rejected. The same ratio for 1952-53 was well above one-fourth.

II — FINANCIAL ASSISTANCE TO INDUSTRIES.

Industries — Large and Small.

Financial Assistance to Industries.

Loans are granted by the Department of Industries for starting new industries as well as for expansion and development of existing industries on a large or small scale under the State-Aid to Industries Rule, 1935. The following are the purposes for which loans are granted :—

(i) construction of buildings, godowns, warehouses, tanks, and other works necessary for industrial operations,

(ii) Purchase and erection of machinery, plant and appliances, and

(iii) Purchase of raw materials.

Besides, loans could now be granted for working capital also, consequent upon the amendment of the State Aid to Industries Rules, 1935 by the Government of Bombay in 1955. The Government of Bombay carried out this amendment with a view to bringing the Rules in line with the liberalised policy adopted by the Government of India to give a fillip to the development of small scale and cottage industries. The Central Government have placed Rs. 10 lakhs at the disposal of the Government of Bombay for the grant of loans to small scale and cottage industries on slightly more liberal terms. Some of the important changes introduced by the recent amendments are:—

(i) loans to small scale industries only are granted by this Department up to Rs. 75,000 in each case and in exceptional cases upto Rs. 1 lakh. Applications for loans above Rs. 75,000 are considered by the recently constituted Bombay State Financial Corporation.

(ii) The former rate of 5½% compound interest is brought down to 5% compound interest per annum subject to a stipulation that if the instalments are not paid in time a penalty of ½% shall be levied on all the amounts including principal and interest in arrears for the period for which arrears are unpaid. As a result of further liberalisation of certain terms and conditions for the grant of loans under the said rules in January, 1956 the rate of interest on loans not exceeding Rs. 50,000 given under the State Aid to Small Scale and Cottage Industries Rules, 1935 is lowered from 5 per cent. to 3 per cent. per annum.

(iii) Loans are advanced to the extent of 75% of the security offered instead of 50% as formerly provided in the rules. Loans are also given against the securities of the value of raw materials, goods in process and stock-in-trade in addition to the hitherto accepted security of immovable properties. Loans are also given against the personal security of persons other than the borrower.

(iv) The period of repayment of the loan on account of machinery and equipment is up to 10 years; such period in respect of that part of the loan which is meant for working capital should not ordinarily exceed 5 to 7 years depending on the merits of each case.

No advantage, however, has been taken of this scheme for grant of loans by the people in the district. The Director of Industries states that since the inception of the scheme for advancing loans under State-Aid to Industries Rules, 1935, there has been no application from any one from the district for loans.

Village and Cottage Industries.

Village and Cottage Industries.

Financial assistance to cottage and village industries is granted under the following four schemes administered by the Co-operative Department :—

1. Scheme for grant of loans and subsidies to *bona fide* craftsmen and their co-operative societies for purchase of tools and equipment and for working capital.

2. Scheme for grant of loans and subsidies to backward class artisans for purchase of tools and equipment and for working capital.

3. Scheme for assistance to educated unemployed to start or develop cottage industries.

4. Scheme for grants of Haskell or Nutan Ghanis on loan-*cum*-subsidy basis.

1. This scheme has been in operation since 1941 in one form or another. Since 1950-51, the scope of the scheme for grant of loan and subsidies to *bona fide* craftsmen for purchase of tools, equipment, etc., has been extended to individual artisans who have not received training in the peripatetic schools of the Department or any other technical institutions recognised by Government. This has been done, as, with the enforcement of legislation for regulation of money-lending, artisans find it difficult to secure necessary financial accommodation required by them for carrying on their industries. The artisans have hardly any tangible assets and few moneylenders are inclined to accommodate them at the rates laid down in the Money-lenders Act. Government have, however, directed that no subsidies should be given to individual artisans. (a) Under the latest version

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Village and Cottage Industries.

of this Scheme, financial assistance for purchase of tools and equipment and for working capital can be granted to—

(i) deserving bona fide craftsmen who have received training in particular industry at the peripatetic schools of this Department or in any other technical institutions recognised by Government;

(ii) trained *bona fide* craftsmen who are already in some business, industry or trade, and

(iii) deserving individual hereditary artisans who are not trained *bona fide* craftsmen.

(b) Financial assistance up to Rs. 2,000 (Rs. 1,000 for tools and equipment and Rs. 1,000 for working capital) can be granted to each artisan. If two or more persons apply for assistance for a joint undertaking the amount that can be sanctioned may be equal to what would have been admissible to each of them separately subject, however, to a maximum of Rs. 6,000 (Rs. 3,000 for tools and equipment and Rs. 3,000 for working capital). In case of trained artisans, 25 per cent. of the amount sanctioned for tools and equipment can be treated as a subsidy. The remaining amount for tools and equipment and that for working capital is to be treated as a loan bearing interest at 4½ per cent. and repayable in five years in equal monthly instalments. The securities to be furnished may be either one or two personal sureties or the mortgage of immovable property. Under this scheme, the Deputy Registrars of Co-operative Societies have been delegated powers to sanction assistance upto Rs. 2,000. Assistance of higher amounts is to be sanctioned by the Joint Registrar for Industrial Co-operatives and Village Industries.

(c) Co-operative societies having at least one-third of their members as *bona fide* craftsmen or persons employed in cottage industries can be granted financial assistance upto Rs. 5,000 for the purchase of tools and equipment. Of this amount, upto 50 per cent. can be treated as subsidy. The remaining portion of the assistance is to carry interest at the rate of 4½ per cent. As regards loans for working capital, the Joint Registrar for Industrial Co-operatives and Village Industries has been empowered to give a marginal Government guarantee of 30 per cent. for credit upto Rs. 15,000 to be raised by each society from the central financing agencies. He has also been authorised to sanction loans for working capital upto Rs. 5,000, at the rate of 4½ per cent. in those cases where the central financing agencies are either reluctant or are not in a position to sanction the loans. After the close of the year ending 30th June, 1954, the proposal to increase the maximum limit of loans that can be sanctioned by the Joint Registrar in each case from Rs. 5,000 to Rs. 15,000 has been approved by Government.

2. Scheme for grant of Loans and Subsidies to Backward class Artisans for purchase of tools, appliances, etc.

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This scheme was originally sanctioned in September, 1943 as a result of the recommendations of the Ad Hoc Committee appointed to consider ways and means for the improvement of backward classes. The distinctive features of this scheme and the assistance granted thereunder are indicated below :—

(i) Financial assistance upto Rs. 2,000 in each case can be granted to backward class artisans for the purchase of tools and equipment and for working capital on terms and conditions similar to those obtaining in respect of loans and subsides to *bona fide* craftsmen. The only modifications are firstly that if the backward class artisan has received training at one of the peripatetic schools of this Department or in a technical institution recognised by Government, the entire amount of financial assistance is free of interest and secondly, in case of artisans who have not received such training, 50 per cent. of the amount is free of interest and the remaining 50 per cent. will carry interest at the rate of 4½ per cent. As in the case of *bona fide* craftsmen, the Deputy Registrars of Co-operative Societies have been delegated powers to sanction financial assistance upto Rs. 2,000/-. Cases involving assistance of over Rs. 2.000 are sanctioned by the Joint Registrar for Industrial Co-operatives and Village Industries.

(ii) Industrial Co-operative Societies of backward class artisans are also eligible for the receipt of loans and subsidies as in the case of other industrial co-operative societies. Exemption from interest in the case of a Co-operative Society is only given when at least 50 per cent. of its members have received training in the peripatetic schools maintained by this Department or in technical institutions recognized by Government. If 75 per cent of the members of the Co-operative Society are untrained backward class artisans, 50 per cent. of the grant sanctioned for working capital would bear interest at the rate of 4 per cent per annum and the remaining portion of the loan can be granted free of interest.

Scheme to help Educated unemployed.

3. Scheme for Grant of Assistance to Educated Unemployed to start or develop Cottage Industries:—

The Scheme was first started in 1942. Under this scheme financial assistance in the form of subsidy and loan can be granted to educated persons who have studied upto S. S. C. Examination or passed the Regional Language Final Examination and who are unemployed, as well as educated persons who are already engaged in

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some business, industry or trade. Assistance is offered to enable such persons to set up some cottage industries, business or trade or to expand their activities. Financial assistance upto Rs. 3,000 can be sanctioned in each case though if two or more persons apply for assistance in order to engage in a joint undertaking, the total amount of assistance may be equal to what would have been admissible to each of them separately, subject, however, to a maximum of Rs. 6,000/-. A sum upto 25 per cent. of the total financial assistance can be treated as subsidy in deserving cases only and the remaining amount is treated as a loan carrying interest at 4½ per cent. The loan is repayable in 5 years in equal monthly instalments, the first instalment being due after 6 months from the date of disbursement of the loan. Security in the form of one or two personal sureties or the mortgage of immovable property is insisted upon. The Deputy Registrars of Co-operative Societies have been delegated powers to sanction loans upto Rs. 1,500 in each case. Cases involving larger amounts can be sanctioned by the Joint Register for Industrial Co-operatives and Village Industries.

4. Scheme for Grant of Haskell or Nutan *Ghanis* on Loan-*cum*-subsidy basis.

The scheme is meant to induce *telis* to use improved types of *ghanis* in preference to the old, less productive *ghanis*. The improved types of *ghanis*, viz., Haskell and Nutan *ghanis* are the result of the scheme for mechanical and chemical investigations and field tests for experimental work and appliances in regard to the village oil industry sanctioned by Bombay Government in 1937. The first Haskell *Ghani* was constructed in 1940.

According to the scheme sanctioned in 1941 the *ghani* was to be supplied to the hereditary *telis* after getting necessary agreements executed by them with a stipulation that if after a trial of three months they were satisfied with the working of the *ghani* and were convinced of its advantage they would purchase it at half the cost. The cost to be recovered from the *teli* was to be treated as a loan from government free of interest to be repaid by him in monthly instalments of Rs. 5 each, the remaining half of the cost was to be treated as subsidy from Government. The *telis* are also eligible for financial assistance upto Rs. 1,000 for the purchase of raw materials and to serve as working capital. The repayment of the loan is spread over a period not exceeding five years and in equal monthly instalments. Payment of first instalment commences after three months from the date of disbursement of loan. The improved *ghanis* are also supplied to co-operative societies of *telis* under similar terms and conditions. The Department of Industrial Co-operatives and Village Industries is authorised to sell *ghanis* to societies having mixed membership of consumers, sympathisers, oilmen, hereditary

or otherwise at full cost after meeting the needs of the societies of *telis* and hereditary *telis*. The *Nutan Ghanis* are supplied to *telis* and their co-operative societies on loan-*cum*-subsidy basis and the element of subsidy is not more than ¼ of the total cost or Rs. 75, whichever is less.

Till the year 1952-53 as many as 170 *ghanis* of improved variety have been introduced under the scheme in the State, but the Broach district has not so far availed of the scheme.

Private and Public Limited Companies.

PRIVATE AND PUBLIC LIMITED COMPANIES.

The limited companies, private and public, excluding banks and insurance companies which are discussed in separate sections, need mention in this chapter to the extent that they attract private and public savings for the different types of economic activities they undertake. It goes without saying that their main aim and function are not mobilisation of savings of people; they try to attract and canalise these savings to finance such diverse activities as manufacturing, trading, transport, etc. for which they are organized.

The company finance is largely made up of share capital, deposits and loans. The exception is the associations of traders and merchants which have no share capital, since they are non-profit companies. Their finance are made up of subscriptions and or entrance fees from members.

The Broach district had in 1956 four private limited companies and four public limited companies. The latter included one merchants' association, viz., the cotton merchants' association at Palej, two electric supply companies, and one motion picture producing and distributing company. Out of the four private companies, two were ginning mills and presses and the remaining two were manufacturing concerns. Thus there were four manufacturing companies, private and public, two mills and presses, one motion picture producing and distributing company and one non-profit trading company. The two oldest companies, both electric and public were registered in 1929. The merchants' association was registered in 1942, and a private engineering company was registered in 1943. The years of registration of the two ginning and pressing mills are 1930 and 1943 respectively. The public company connected with motion picture production and distribution was registered in 1947, and the remaining private company engaged in the manufacture of chemicals was registered in 1948.

The following table shows the financial position of the companies as divided into the above four groups.

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PRIVATE AND PUBLIC LIMITED COMPANIES.

TABLE No. 22

Groups. 1	Prid-up Capital 2	Deposits. 3	Loans incl-unding debe-ntures. 4	Other liabilities@ 5	Total. 6
	Rs.	Rs.	Rs.	Rs.	Rs.
(i) Manufacturing ...	12,45,815	59,168	1,56,779	16,96,821	31,58,583
(ii) Mills and Presses ...	13,78,000	...	...	630	13,78,630
(iii) Trading*	...	...	...	34,299	34,299
(iv) Motion Picture Producing and Distributing.	94,000	...	66,817	59,735	2,20,552
Total ...	27,17,815	59,168	2,23,596	17,91,485	47,92,064

The company finance has as its major component the paid-up share capital. The total liabilities of the companies are a rough indication of its success in mobilising public savings. Since the liabilities of a company as they stand at any date are the cumulative result over a number of years, they can be taken to represent the savings mobilised neither in a particular year nor a certain period of time. Moreover scope for manipulations in presenting a balance-sheet being considerable, it is difficult to rely on the liabilities side of a company balance sheet as an index of its efforts to attract capital by way of share capital, loans or deposits. It at best indicates the general capital position of the company at the end of a particular period and must be regarded useful only to that extent.

The two mills and presses which were private limited companies had the largest share capital viz. Rs. 13,78,000. Next came the manufacturing concerns among which were two electric concerns organised as public limited companies and an engineering and a chemicals company both being private limited concerns. They had a total share capital of Rs. 12,45,815. The analysis of values of shares and number of shareholders in each group is more revealing from the point of view of who provides finances and what is their nature. The nominal value of shares, which were in all but two cases ordinary, ranged from Rs 2-8-0 to Rs. 500 and the gins and presses had shares of the largest value viz. Rs. 500. The total share capital of all the groups of Rs. 27,17,815 was subscribed through 29,322 ordinary shares and 3,533 other types of shares held by 745 and 59 individuals respectively. But, whereas 588 persons subscribed through 26,864 shares, the share capital of Rs. 12,45,815 of the manufacturing concerns, only 13 individuals subscribed through only 3,476 shares the share capital of no less a sum than Rs. 13,78,000 of the two

@ Other liabilities include reserve and depreciation funds, provision for taxes, unclaimed dividends, etc.; except in the case of trading associations whose finances consist mainly of entrance fees and subscriptions of members.

* Figures for trading concern are for 1949.

latter concerns of ginning and pressing. Thus the average value of a share worked out Rs. 46 in the case of manufacturing concerns and Rs. 396 in the case of the gins and presses and each shareholder contributed on average Rs. 2,118.7 and Rs. 1,06,000 in the two cases respectively.

The reason for this disparity is not far to seek. The gins and presses were private concerns and as such were mainly financed by a few private individuals. The number of shareholders in a private company is limited by law. Whereas a private company cannot have more than 50 shareholders, in practice members of a family or two, sponsor a company and themselves become financiers. Hence the limitation of number of shareholders and the large average contribution by its shareholders. Even in the care of two manufacturing limitation to a number of shareholders and the large average concerns which were private companies the number of shareholders was only 33 and who, between them, subscribed a capital of Rs. 5,60,000 through 5,600 shares.

Contrary is the case of public companies. It is generally where private finance falls short of requirement that the public at large is called upon to invest their savings in the shares of the company. In such cases investment is spread widely but thinly. The face value of the shares is small, the number of shareholders is large and contribution of each is small. Out of the two electric companies in Broach in 1956, one had a share capital of Rs. 23,765 subscribed by 243 individuals through 9,506 shares and the other Rs. 6,62,050 subscribed through 312 individuals through 11,758 shares.

CHAPTER 8.

Trade.
POPULATION ENGAGED IN TRADE.

CHAPTER 8—TRADE

AMONG THE OCCUPATIONS LISTED in the Census of 1951 as providing means of livelihood to people in the Broach district, Commerce ranks very low, only above Transport, which is the lowest. It provided the principal means of livelihood only to 37,395 persons, or 5.2 per cent. of the total population, and a subsidiary means of livelihood only to 3,980 persons. Of the persons deriving their principal means of livelihood from Commerce only 9,083 were self-supporting, 2,006 were earning dependants, and the rest 26,306 non-earning dependants. The self-supporting 9,083 persons are classified in the Census report as follows :—

TABLE No. 1

BROACH DISTRICT : NUMBER OF SELF-SUPPORTING PERSONS ENGAGED IN VARIOUS TRADES (1951)

Sub-divisions.	Employers	Employees	Independant Workers	Total
Retail trade otherwise unclassified	321	366	2,094	2,78 1
Retail trade in foodstuffs (including beverages and narcotics)	603	560	3,198	4,361
Retail trade in fuel including petrol	65	106	137	308
Retail trade in textiles and leather goods	227	185	488	900
Wholesale trade in foodstuffs	5	1	16	22
Wholesale trade in commodities other than foodstuffs	28	14	86	128
Real Estate	—	1	—	1
Insurance	3	16	13	32
Money lending, banking and other financial business	36	169	345	550
	1,288	1,418	6,377	9,083

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Of the 9,083 self-supporting persons 6,271 persons were from urban areas and 2,812 from rural areas. This brings home the fact that trade and commerce were located mainly in the urban areas of the district. The above table shows that 8,350 persons were employed in retail trade, 150 in wholesale trade and the rest in other forms of business. Both in retail and wholesale trades, independent workers predominate.

The number of people engaged in trade and commerce showed considerable increase between 1881 and 1951. Due to the absence of a common pattern for presentation of occupational data in Census reports, a comprehensive picture of changes in occupational pattern from decade to decade cannot be attempted. The Census of 1881 shows 2,365 productive workers engaged in commerce, which comes to 0.72 per cent. of the then total population of the district. The Census of 1951 shows 9,083 self-supporting persons, that is 1.28 per cent. of the population.

TRADE IN ANCIENT TIMES.

In the time of the author of the *Periplus* (A.D. 75), Broach was one of the chief seats of trade between India and the markets of western Asia.* Five distinct trade routes would seem to have centred at Broach, or, as it was then called Barugaza. Of these routes, two were by sea and three by land. Of the sea routes, that of most consequence was to Southern Arabia and Egypt. The other, a less important line of trade, was with the ports of the Persian Gulf. By land, merchandize went and came northwards through Minnagara in Sind; eastwards, through Ujain, then the Capital of Malwa; and southwards, as far as Daulatabad (Tagara) and Paithan (Palithana), the chief towns of the Deccan.

IMPORTS.

The following is the list of articles imported from Arabia and Egypt : of metallic substances and precious stones, gold and silver, brass, tin, lead, cinnabar (ore of quick-silver), stibium (sulphuret of antimony for tinging the eyes), white glass, topazes, and coral; of vegetable products — wine, of which Italian wines are said to have been the favourite, though wine from Asia Minor and Arabia was also imported, sweet lotus, storax (an aromatic resin), and other perfumes; of manufactured articles — cloth, plain and mixed, and variegated sashes half a yard wide. The imports by sea from the Persian Gulf were slaves, gold, and pearls in large quantities, but of an inferior sort; purple dates in great numbers, wine, and cloth of native manufacture. The imports by land are said to have been from the north : of precious stones — the onyx; of vegetable products — box, thorn, cotton of all sorts, long pepper; of perfumes — spikenard, costus (the root of a Himalayan thistle, *Aucklandia*), bedellium (a fragrant gum), and myrrh; and of animal products — ivory and silk. From the east and south came onyx stones; and of manufactured articles — porcelain, muslins, and cotton both, fine and for ordinary wear.

* This account of the early trade of Broach is condensed from Vincent's *Periplus of the Erythrean Sea*, Vol. II, 366.

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EXPORTS.

The exports from Broach by sea are said to have been to southern Arabia and Egypt : they consisted of vegetable products — rice, clarified butter, oil of sesamum, cotton and sugar; and of manufactured articles — muslin and sashes. To Oman, in the Persian Gulf, the ships are said to have taken from Broach : metals — brass; and animal and vegetable products — horns, sandal-wood, and ebony in round sticks. Besides these regular trade routes, Dr. Vincent alludes (II., 366) to a traffic from Broach to Africa for gold, and "probably to Malabar and Ceylon for pepper and cinnamon".

TRADE.
1638-1875.

In the seventeenth century, ships sailed eastward to Java and Sumatra, and to the west as far as Aden and the ports of the Red Sea. No details as to the extent of Broach trade at that itme have been obtained; but the course of trade and the nature of the articles of import and of export are thus described* by a traveller who visited Broach in 1638 : "In their trade with Arabia the vessels start from Broach in the begining of March, and return in September. The imports from the Aden coast are chiefly gold and silver; besides these, coral, amber, *misseit* (a red dye), coffee and opium 'considered to be the best in all the east'. From Broach the exports to the Arabian coast are cotton, cloth, indigo, camphor, tobacco, alum, sulphur, benzoin, or benjamin (a gum, the resin of *Styrax benzcin)*, pepper, and other spices, myrobalans, and preserved fruits". With regard to the trade with the Persian Gulf, the same traveller says: "Small vessels from Surat, Cambay, and Broach, leaving Gujarat in January and February, and returning in April and the beginning of May, trade with the Persian Gulf. From Persia these ships bring brocades, silk-cloths, velvets, camelots, pearls, dried fruits, such as almonds, raisins, nuts and dates; but especially they bring rose-water, of which they make a very great trade".

The vessels that went to Sumatra (Achin) were of 120, 200 or 300 tons burden. To avoid the Portuguese, they were forced to start from Gujarat in May, and came back in October before the close of the stormy months. From Sumatra these ships brought sulphur, benzoin (or benjamin), camphor, porcelain, carded wood, and pepper. They exported from Broach 'every sort of country-ware'. With the Malabar coast there was a great trade. The ships reached Gujarat in December and left in April. From Malabar the imports were coir (coconut fibre); *copra* (dried coconut kernels); brown sugar; areca or betel-nut; *'patang'* (sappan-wood, Caesalpinia sappan); *'harpus'* used for caulking ships; rice and other provisions. The exports to Malabar were opium, saffron, coral, cotton, thread, sail-cloth, and fabrics of many other kinds Those who traded with Europe took to Goastuffs, cotton, indigo, satpetre, lac, sugar, myrobalans, dried fruits, cabinets and lacquered work. The trade of which, before the Dutch and English came, the Portuguese had the monopoly, was, imports into Gujarat-lead, tin vermilion, quicksilver, all kinds of cloth, ivory, sandal-wood, pepper, cardamoms, cloves, porcelain,

* Mandelslo's Voyages, 210-213.

china-ware, coconuts, coir, and European vases of gold and silver gilt. The exports from Gujarat for Europe were, cloths of different kinds, indigo, saltpetre, lac, sugar, myrobalans, preserved fruits, bedsteads, cabinets, and other lacquered work; for China and Japan the exports were butter, assafoetida, opium, cumin seed, cotton and thread.

Later on, the foreign trade of Gujarat centred more and more in Surat, and from Surat was transferred to Bombay. The cotton exported from Broach to China and Bengal was sent through Surat* and Bombay, and as far back as 1815@ the Broach ports had ceased to have any foreign commerce. The whole was a coasting trade south to Bombay and all the intermediate ports, and north as far as Mandvi in Cutch. The imports were sugar, unwrought metals, woollens, coconuts, spices, and all kinds of European and Chinese goods in use among the natives, with a small portion of teak, timber, bamboo, and rafters from Daman and the other ports in the neighbourhood, and Govenment stores. The exports were cotton, grain, other products of the soil and a few manufactures.

In 1815-16, as calculated by Colonel Williams, in his Memoirs, the imports into town of Broach by sea were valued at Rs. 14,77,800 and exports at Rs. 11,90,000 (including Rs. 8,00,000 worth of cotton). Between 1837 and 1875, the chief articles of trade from the Broach ports towards the South of Gujarat and the ports of the northern konkan were, of exports *mahura* flower and wheat; of imports *gul*, rice in husk, betel-nut, plantains, bamboos and teaks. To Bombay the exports were cotton and grain; the imports were iron, coal, ropes, and miscellaneous articles. To Malabar and other ports south of Bombay, the imports were coconuts, coir rope, betel-nut, pepper, sandalwood, teak and other kinds of timber. Towards the west and north to the Kathiawar ports and to Cutch, the exports were grain, cotton seed, *mahura* flowers, tiles and firewood; the imports, chiefly stones for building. The traffic with Karachi was almost the same as that with Cutch, but carried only to a very limited extent. Occasionally, too a vessel sailed to Zanzibar and brought back white dates.

In 1820 Colonel Williams wrote that the goods imported from Bombay and Surat were passed into the interior in large two-wheeled carts drawn by eight or ten yoke of oxen, which came to Broach and Jambusar for the purpose. In 1849 this traffic was so considerable that every year about 2,000 carts left Broach for the inland parts of Gujarat and the west of Malwa. Broach was in fact the headquarters of trade for the whole area between the rivers Mahi and Narmada, and for a large tract of land inwards as far as Ratlam in western Malwa.

The portion of the then Bombay, Baroda, and Central Indian Railway that lies within the limits of the Broach district was opened

*The trade of Broach in 1805 was chiefly centred at Surat. 'The produce of the country round Broach, consisting of cotton, cotton yarn, and piece goods, is generally shipped to Surat'. Milburn's Oriental Commerce, 136.

@ Colonel Williams' Memoir, 57.

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for traffic in 1861. The effect of this development was to reduce the importance of Broach as a provincial mart. The through traffic from the inland districts to the sea board was to a lrage extent diverted to the different stations along the line of rail, the merchandise being conveyed from there direct to Bombay.

Trade at Present. SEA TRADE.

Being in the centre of a cotton-growing tract, Broach even now carries on a fair amount of coastal trade with other coastal towns of India and an appreciable amount of inland trade with other Indian trade centres by means of roads and railways.

The following tabulated statement gives us, as regards Broach port, the volume and value of exports and imports and the amount of import duty collected in the years 1952-53 to 1955-56. No export duty was collected.

TABLE No. 2

BROACH PORT : STATEMENT SHOWING IMPORTS EXPORTS AND IMPORT DUTY, 1952-53 to 1955-56.

Year	Quantity		Value		Amount of import duty collected
	Imports in tons	Exports in tons	Imports in Rupees	Exports in Rupees	
1952-53 ...	25,946	28,443	43,15,127	80,45,006	30,146
1953-54 ...	32,584	24,449	—	—	22,265
1954-55 ...	29,446	20,665	64,17,443	47,76,762	21,327
1955-56 ...	30,349	15,580	77,29,834	66,36,475	—

RAILWAY TRAFFIC.

The railways too serve as a connecting link between Broach and its neighbouring districts as well as Bombay, the main trade mart and the capital of the State. In the Broach district, the talukas of Jhagadia, Nandod, Amod, Vaghra and Jambusar are connected with Broach city both by railway and roads. The isolated jungle talukas of Dediapada and Sagbara are linked by road to Netrang, from where there is connection by road as well as rail to Ankleshwar which lies on the broad guage main railway line as well as on the Bombay-Ahmedabad National Highway. Moreover, the minor ports such as Tankari, Dahej and Kavi as well as the towns of Samni, Kora and Hansot are also connected with Broach by road and rail. Broach district is fairly well connected with Baroda district in the north and Surat district in the south; its transport link with the eastern district of West Khandesh is, however, not very satisfactory, because of intervening jungles and bad roads.

The chief articles of import into Broach district now (1954), are building materials; articles of food, such as cereals, pulses, edible oils, gur and sugar, ghee, tea, salt, spices, etc.; kerosene oil and

petrol; textile products; metal sheets; metals; utensils; implements and appliances; medicines; fuel; and a number of toilet articles such as soaps, hair oils, perfumes and scents; and sundry stationery and cutlery.

Of building materials, bamboos and *valis* are imported from Godhra and Chhota Udepur forests; timber from Dang, Dharampur and Chhota Udepur forests; hardware articles such as nails, screws, hinges, bolts etc., from Bombay; paints, indigo and other painting materials from Bombay; cement from Porbandar (Saurashtra) and Sevalia in Kaira district; road metal from Udwada (Surat District).

Among food grains, jowar, the staple diet of the district, is not normally imported from outside. Bajri is imported from Saurashtra and Uttar Pradesh in small quantity; wheat in considerable quantity from Malwa, Madhya Bharat and the Punjab; rice from Thana District and Burma; pulses from Khandesh, Berar, Mehsana and Panch Mahals districts, and Uttar Pradesh. Of oilseeds, *til* and groundnuts are imported from Panch Mahals Saurashtra and Khandesh. Edible oils are imported from Saurashtra, Panch Mahals, Khandesh and Madras; hydrogenated oils from Bombay, Berar, Khandesh and Saurashtra. Raw and refined sugar as well as *gur* are imported from Uttar Pradesh; tea from the Nilgiris and Calcutta; ghee (clarified butter) from Kaira district and Saurashtra; coconuts from Ambur (Madras State), Vaniambadi (Madras State), Bezwada (Andhra State), Kakinada (Andhra State) and Madras and Malabar moasts; and salt from Bhavnagar (Saurashtra) and Dungri (Surat). Of spices, brown mustard are imported from Bhal, Dholera, Dhandhuka and Dholka regions of North Gujarat; fenugreek from Ratlam and Malwa; cumin seed from Mehsana district; asafoetida from Bombay and Nadiad; pepper from Calicut, Cochin and Mangalore, cinnamon from Hongkong and China; clove from Hongkong; betelnut from Mangrol; chillies from Byadgi, Madhya Bharat, Rohatak district (Punjab), Patna (Bihar) and North Gujarat. Tobacco is imported from Kaira. Dates are imported from Jamnagar, Porbundar and Morvi in Saurashtra; and other dry fruits from Bombay and Ahmedabad.

Of garden produce, onions are imported from Saurashtra potatoes from Uttar Pradesh, Deesa and Padra (Baroda district); plantains from Surat district; mangoes from Bulsar taluka of Surat district; fresh and leafy vegetables from Padra (Baroda district) and honey from Abu (Rajasthan).

Kerosene oil and petrol come from Bombay and matches from Bombay and Madras.

Of textile products, cotton textiles are imported from Bombay, Ahmedabad and Madras; fancy silk and woollen cloth from Bombay; carpets from Agra and Salem; handloom and power loom cloth from Surat; haberdashery, silk and art silk yarn and cotton yarn from Bombay.

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Of the miscellaneous imports, ironware and tinware are imported from Bombay; brass and copperware from Dabhoi, Bombay and Navsari; charcoal from Chhota Udepur; firewood from Chhota Udepur and Dharampur talukas of Surat district; hay and fodder from Thana district; betel leaves from Bassein and Salem (Madras State); glassware and porcelainware from Than in Saurashtra; stationery and cutlery goods from Bombay; leather goods from Kanpur and Agra; perfumes, medicines and toilet goods from Bombay; sheets of metals such as brass, copper, iron and tin from Bombay.

EXPORTS.

As Broach district is predominantly agricultural, its exports consist chiefly of agricultural products. Cotton, of course, is its chief export and trade in it is described separately in the succeeding paragraphs. Lang is another important item of export and most of the district's production of lang is exported to Bombay, from where it is sent to ports in South India. The next important item is cotton seeds. They are exported to Bombay, Malabar, Saurashtra, North Gujarat and Kaira district. Timber produced in the jungles of the Nandod, Sagbara and Dediapada talukas of this district is exported to Bombay, Ahmedabad, Baroda, Mehsana district, Saurashtra. Charcoal and firewood are exported to Surat, Ahmedabad, Bombay, and Baroda. Fresh and leafy vegetables are exported to Bombay, Surat, Navsari and Ahmedabad. Fresh water fish is exported to Bombay in the monsoon. Handloom and power-loom products are exported to Bombay; dates are re-exported to Madhya Bharat and Rajasthn; and coconuts are re-exported to some parts of Gujarat, Rajasthan, and Madhya Bharat. Leather washers used in textile mills are made locally and exported to textile centres all over India.

Cotton.

Cotton is the most important of the commodities exported out of the district. This was the condition even at the time of the compilation of the old Gazetteer, i.e., about the year 1877. Messrs. Volkart Brothers have estimated the number of bales pressed in each of the ten years ending 1952-53 as follows :—

TABLE No. 3

BROACH DISTRICT : STATEMENT SHOWING COTTON PRESSED DURING THE DE NNIUM 1943-53.

Year	Broach Area	Ankleshwar/ Rajpipla area	Total
1943-44	1,36,428	64,531	2,00,959
1944-45	42,173	24,893	67,066
1945-46	42,461	28,993	71,454
1946-47	64,200	22,766	86,966
1947-48	90,968	33,886	1,24,854
1948-49	19,990	25,092	45,082
1949-50	98,429	38,762	1,37,191
1950-51	90,675	30,892	1,21,567
1951-52	48,755	20,310	69,565
1952-53	94,183	38,037	1,32,220
Total	7,28,262	3,28,662	10,56,924

According to the estimates prepared by M/s. Volkart Brothers, Broach, the number of cotton bales ginned and pressed at the important centres in the district in 1954-55 and 1955-56 were as follows :—

Name of Centre	1954-55	1955-56
Broach	19,665	17,752
Nabipur	7,302	6,612
Kavi	48,517	42,618
Rajpipla	5,988	9,471
Palej	9,630	12,739
Amod	10,527	15,993
Jambusar	13,296	5,676
Ankleshwar	15,883	14,574
Samni	10,242	4,740
Kora	—	9,046
Total ...	1,41,070	1,39,221

In the estimates of Messrs. Volkart Brothers, figures for Ankleshwar/Rajpipla region are given separately because the variety of cotton grown in that region is 'suyog' cotton which is popularly known as "Surati" cotton, and that region forms a part of the "Surat Cotton Area" as known by the cotton trade. The rest of the Broach district forms part of the Broach Cotton Area or "Main Vijay Tract" extending from the northern bank of the Narmada in the south to Cambay/Petlad in the north and covers the districts of Broach, Baroda, Kaira and Panch Mahals. The variety of cotton grown in this area is known as "Vijay" cotton.

Since the introduction of staple varieties (B.D. 8/1027 A.L.F. and lately Vijay) in place of the old Deshi variety known as "Choghari", and the stoppage of export of long staple varieties to foreign countries, the entire production of cotton in Broach district is consumed by Indian mills. As Bombay and Ahmedabad, the leading cotton textile manufacturing centres of India, are very near to Broach, a fairly large portion of the cotton production of the district is consumed by mills in these two centres. The southern mills, chiefly Binny's and Harvey's, and also the mills in Kanpur consume large quantities of Broach cotton, particularly since the improved strain, 'Vijay' was introduced. In the Broach district itself there is only one mill and it consumes a very small quantity, say, 300 bales of cotton in a year.

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Trade.
DURING WORLD-WAR II AND LATER.

During war years, it was found necessary to divert lands devoted to cultivation of cotton to the cultivation of food grains in order to meet the food shortage. There was, therefore, considerable reduction in cotton areas in 1944-45. With the partition of India in 1947 problem of supply of cotton to Indian mills became very difficult because large cotton-producing areas were included in Pakistan. Inadequate supplies of the good varieties of cotton affected production of cloth and prices, both of cotton and cloth, recorded a substantial increase. At this stage, Government's intervention became quite necessary and in order to conserve supplies of cotton in the country and to make such supplies available to the mills at reasonable prices, Government had to enact legislation designed to achieve these ends. The more important among the measures taken were as follows :—

(1) Imposition of price control and Bombay licensing order, in 1948/49 ;

(2) Rationing of cotton and restrictions on the movement of cotton, in 1949/50 ;

(3) Introduction of the "Nominee Scheme" and setting up of Cotton Distribution Committees to ensure equitable distribution of cotton to mills, in 1950-51 ;

(4) Division of cotton dealers into three categories, viz., 'A', 'B' and 'C', with a view to liberalizing the issue of licences.

Besides, there was complete stoppage of hedge trading in the seasons of 1949-50, 1950-51 and 1951-52 in addition to a restriction on early trading on new cotton crop

Despite several measures taken by the Government, not until the "Nominee Scheme" came into force was the desired purpose realised. This scheme worked satisfactorily in Broach district. According to the Nominee Scheme, mills which wanted cotton against their quota (which was determined by Government for purposes of cotton rationing) had to place a buying order with any one of the nominees appointed by the Textile Commissioner. The nominee in his turn used to register with the Distribution Committee the demand for cotton for which he had received buying orders from his mill customers, and against such demand, allocations were made (in full-pressed bales) by the Distribution Committee at a fixed price. If any buyer (in this case a mill) suspected that the cotton supplied to him was not of the quality appropriate for the price fixed by the Distribution Committee, he had the right to call for a survey (local survey held by the Distribution Committee) and the difference, if any, according to the result of the survey was admissible to the buyer concerned. Surveys were open also to sellers who thought the Distribution Committee's price for their cotton was lower than what was warranted by market conditions. The purpose for which such Distribution Committees were set up was achieved in so far as the rising prices of cotton were checked and mills were able to get their supplies of cotton at or within the ceilings fixed.

There was a feeling in some trade circles, that owing to the frequent bans and restrictions imposed by Government on the purchase, sale and movement of cotton during the course of about five years after 1947 the normal trade channels engaged in the handling of the cotton trade were not fully at work. Particularly during the period when the nominee scheme was in operation, many a dealer who had no direct connection with mills had to remain idle except for a few stray deals. Government realised these difficulties and, as conditions improved, relaxed or removed some of the restrictions, with the result that at present (1956) the only controls that operate are (1) ceiling and floor levels for prices of cotton; (2) ban on exports of long staple cotton to foreign countries; and (3) fixation of quotas for foreign exports.

COTTON TRADE IN REGULATED MARKETS.

Cotton, though the chief agricultural produce of Broach district, was not, until 1948, an article of trade regulated under the Bombay Agricultural Produce Markets Act, 1939. So far as transactions in cotton are concerned, this Act had been applied to four markets in Broach district upto the 1st of September 1956. It was first applied to the Broach market (comprising Broach and Wagra talukas and Amod peta) on 10th August 1948; then to the Jambusar market (comprising Jambusar taluka) on 25th February 1954; and to the Ankleshwar market (comprising Ankleshwar taluka and Hansot peta) on 25th February 1954. Although orders have already been passed applying the Act to the Jhagadia market (comprising Jhagadia taluka and Valia peta) the market has not yet (1956) begun to function as suitable land for a principal market yard has not yet been acquired.

In Broach district, in all these markets, due to local conditions and other factors, *Kapas* is mostly sold by growers at their villages. The petty merchants and gin-owners go to the village for purchases. The market committees license premises where the producers take their *kapas*, and sell it to the petty merchants and gin-owners. The market committees appoint their Inspectors to supervise weighments, etc. At Jambusar, however, to some extent, the produce is brought to the market yard and sold by open auction.

As regards ginned cotton there are both traders and commission agents operating in the markets. The sellers are gin-owners, traders and co-operative sale and multipurpose societies. Commission agents work on behalf of traders, and their fees are regulated by the bye-laws of the market committees. In recent years, with the exception of a few short-stapled varieties, most of the cotton grown in Broach is taken up by mills in India. The mills generally buy this cotton from Bombay merchants. Some of the Bombay merchants have their own organisations at several upcountry centres in Broach to effect purchases of *kapas* or ginned cotton, but the others buy ginned cotton through commission agents working for them in Broach. These commission agents are either gin and press owners or cotton dealers. In recent years some co-operative sale and purchase societies have put up their own ginning and pressing factories.

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Trade.
COTTON TRADE IN REGULATED MARKETS.

They collect the *kapas* of their grower-members, gin and press it, and also sell it. They also act as commission agents. Most of the gin and press owners and cotton traders are financially well off. They buy *kapas*, and gin and press it in full-pressed bales. If they get a ready buyer locally at an attractive price they sell their bales to him; otherwise they send those bales to Bombay for lucrative disposal.

The volume (in Bengali maunds) of business in cotton transacted in the three regulated markets during 1953-54, 1954-55, and 1955-56 is given below :—

Name of market	1953-54	1954-55	1955-56
Broach	3,21,827	2,17,914	6,02,211
Ankleshwar	1,28,822	3,34,210	4,01,219
Jambusar	3,39,425	1,95,530	3,62,220

The total number of wholesale dealers in the above three markets is fifteen. Four are in Broach, and all of them operate in Broach and Palej, the market centres in the Broach market area. Only two of the wholesalers operate at Wagra and Amod. Seven dealers operate in the Jambusar market, four of them at Jambusar, two at Kora and one at Kavi. Ankleshwar has four wholesalers, one of them operates at all the markets of Ankleshwar, viz., Ankleshwar, Hansot, Panoli and Ilav; the others operate only at one or two of these markets. While big dealers employ capital of 30 or 40 lakhs of rupees, the small dealers employ anything between Rs. 10,000 and Rs. 1,00,000.

COTTON TRADE IN UNREGULATED MARKETS (NANDOD TALUKA).

There is no regulated market in Nandod taluka, although about 8,000 bales of cotton valued at about Rs. 30,00,000 are dealt in there. There are four ginning factories in this taluka. Local and outside merchants, who deal in cotton, open offices in these ginning factories and purchase the *kapas* that agriculturists bring there. There is free trade. The merchants get it weighed in the scales of the ginning factories. The weighing is made by the employees of the factories and no charges are levied. The factories only charge ginning rates. After the *kapas* has been ginned the merchants send the cotton for pressing at a pressing factory at Rajpipla or at Jhagadia. The bales are then sent either to Surat or Bombay to be sold by the agents of the Rajpipla merchants. Some Ahmedabad mills make direct purchases from the merchants at Rajpipla. The agents in Surat charge varying brokerage rates and also *dharmada*, etc., and generally these charges amount to Rs. 1-11-0 per khandi. The agents in Bombay charge brokerage of ½ or 1 per cent., insurance rates and warehouse charges. The cotton seeds which are stocked in the godowns of the ginning factories are purchased by wholesale merchants from outside and sent by rail to Bombay, Surat and Ahmedabad. There are four local firms and two outside firms dealing in cotton and sixteen merchants dealing in cotton seed. The value of cotton seed dealt in is about Rs. 10,00,000.

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Trade.
Storage.

For storage of cotton, godown accommodation is easily available in Broach district. During the course of the season, cotton stocks, both full-pressed and loose cotton, are usually stacked in the open in the factory compounds. Cotton in full-pressed bales which remains unsold until the onset of the monsoon is stacked in factory godowns for later disposal. During the monsoon it gains in weight due to moist weather; and thus, the loss in weight previously suffered due to exposure to the sun is made up.

COTTON TRADE IN UNREGULATED MARKETS

Trade Routes.

Almost all the cotton in the district is despatched to various destinations by rail. Although it can be despatched from the Broach port by sea to Bombay in country craft, high freights and high marine insurance charges make such despatches more expensive than rail despatches. During 1930-35 when Broach cotton could be exported out of India, a fair portion of the district output of cotton was sent in country crafts to Bombay, since sea freight was cheaper than railway freight. Now-a-days, only on a few rare occasions, when there is an acute shortage of railway wagons, and the prospects of profit warrant incurring of the heavier freight and insurance charges, is the sea route resorted to.

Railway Traffic in Cotton.

The following table gives the tonnage of "raw cotton pressed" booked from the important railway stations in the district to selected important destinations: —

TABLE No. 4

BROACH DISTRICT—TONNAGE OF RAW COTTON PRESSED BOOKED TO SELECTED FROM IMPORTANT RAILWAY STATIONS DURING THIS YEAR 1952-53.

Destination	Booked from									Total
	Broach	Ankleshwar	Jhagadia	Jambusar	Palej	Rajpipla	Netrang	Vagra	Amod	
Carnac Bridge	9	—	—	—	—	1	—	—	—	10
Cotton Depot	988	1,147	2,142	—	1,607	1,086	686	265	1,028	8,949
Panton Bunder	35	—	—	—	—	—	—	—	—	35
Dadar	18	—	—	—	—	—	—	18	—	36
Via Dadar	18	—	18	—	161	—	27	18	17	259
Surat	—	53	63	—	71	—	—	—	—	187
Broach	—	—	1	—	18	18	—	—	—	37
Baroda	7	—	—	—	—	—	—	—	—	7
Via Mathura	—	201	101	—	—	282	—	—	—	584
Kankaria	101	37	158	—	175	—	41	—	33	545
Ahmedabad	65	18	—	—	36	61	—	—	35	215
Asarva	33	81	162	—	354	27	101	—	108	866
Via Agra East Bank ..	—	17	—	—	—	—	—	—	18	35
Via Ujjain	36	28	—	—	400	18	107	35	52	676
Petlad	—	—	—	—	70	—	—	—	—	70
Jalgaon	34	—	—	—	—	—	—	—	—	34
Via Jalgaon	88	89	10	—	102	—	—	35	—	324
Kalol	18	18	—	—	—	—	—	—	15	51
Unjha	1	—	—	—	—	—	—	—	—	1
Beawer	—	—	—	—	129	—	—	—	—	129
Kisangarh	—	—	—	—	70	—	—	—	—	70
Via Rewari	—	—	—	—	18	—	—	—	—	18
Kadi	19	—	18	—	—	—	44	—	—	81
Total	1,470	1,689	2,673	—	3,211	1,493	1,006	371	1,306	13,219

CHAPTER 8. — Trade. COTTON TRADE IN UNREGULATED MARKETS. *Improved Varieties and Price Fluctuations.*

The present variety of "Vijay" cotton grown in Broach district is the result of a series of attempts at improving the quality of cotton grown in the district. Originally the *deshi* variety known as "Choghari" was mainly grown in Broach. Although this variety gave a satisfactory field outturn, it was too short in staple. Therefore, in 1935 there was a switch-over to B. D. 8, an improved variety giving better yield and better staple than the *deshi* variety. From season of 1942-43 onwards the new strain known as "Vijay" was introduced. This new strain gives, apart from better field outturn, better staple, the spinning performance being invariably 24's. It is, therefore, in good demand by mills.

In a predominantly agricultural district such as Broach the price obtained for cotton materially affects the income and standard of life of a large number of people in the district. In the prewar days (World War II), the prices realised by cultivators were not satisfactory. During the period of the war and even after the war (except in 1943-44 when cotton prices had reached "floor" levels) cotton cultivation was remunerative to growers. In fact, after 1945 the prevailing prices for cotton were quite attractive to cultivators and the question of any material reduction in the cotton acreage never cropped up. Even the 'grow more food' campaign had little effect on cotton acreage in the district, primarily because cotton cultivation gave better returns to cultivators than cultivation of other crops and secondarily because the soil in Broach district is particularly suited to cultivation of cotton. The evolution of improved varieties of cotton is an encouraging factor tending to maintain the normal acreage under cotton.

The following are the average prices of cotton (during each season) for the last ten years:—

TABLE No. 5

STATEMENT SHOWING PRICES OF BROACH COTTON FROM 1946-47 UPTO 1955-56.

Year	Prices (C.I.F.) Bombay Rs. per candy of 784 lbs.
1946-47	530 to 590
1947-48	800 to 900
1948-49	750 to 800
1949-50	930 to 980
1950-51	950 to 955
1951-52	755 to 955
1952-53	825 to 900
1953-54	800 to 925
1954-55	675 to 760
1955-56	800 to 950

CO-OPERATIVE SOCIETIES.

The Co-operative societies of the district play their role in the cotton trade of the district, though to a small extent. There were (1955-56) seven cotton sale societies in the district. There was also a federation of cotton sale societies and multipurpose societies which

functioned as a supervising body and provided useful guidance to the societies in respect of the sale of cotton.

The following table reveals the progress made by these societies, in recent years.

TABLE No. 6

STATEMENT SHOWING PROGRESS MADE BY CO-OPERATIVE COTTON SALE SOCIETIES, IN BROACH DISTRICT.

Particulars	1950-51	1951-52	1952-53	1954-55	1955-56
No. of Members ..	2,068	2,643	2,716	3,722	4,203
Share Capital .. .. Rs.	79,700	1,24,450	1,30,890	2,39,945	3,29,895
Working Capital . Rs.	2,65,785	7,50,768	4,66,472	11,55,778	15,28,766
Value of cotton sold .. Rs.	55,19,467	15,97,976	55,40,471	1,15,21,199	1,20,52,070
Commission earned .. Rs.	7,107	2,333	9,268	26,231	32,674

Two ginning and pressing societies were organised during 1955-56. The total number of such societies was eight in 1954-55, but in 1955-56 it was only seven because one society was converted into a multipurpose society during the year. These societies ginned 3,09,344 Bengali maunds of raw cotton and sold ginned cotton and cotton seed worth Rs. 25,44,831 as against the figure of Rs. 30,09,307 in the previous year. The reason for the decline in 1955-56 was that there was less collection of cotton by Ginning and Pressing societies and variation in cotton prices.*

WHOLESALE TRADE.

Foodgrains are of course one of the chief items of wholesale trade, next in importance to cotton. But due to the working of statutory rationing, monopolistic procurement and distribution of foodgrains on Government account during the war and post-war period up to 1954, normal trade channels were not functioning in respect of foodgrains. Since the removal of all controls in 1954, foodgrains are being freely imported into the district by traders and the market conditions are getting stabilized.

Kariyana

The class of persons who are now dealing in foodgrains style themselves as "General Merchants and Commission Agents" and are popularly known as *kariyana* merchants. They deal in all kinds of foodgrains and pulses, gur, sugar, edible oils, hydrogenated oils, oilseeds, cotton seeds, and *lang*. There are about two hundred and seventy important wholesalers in the district dealing in these articles. Important ones among them are concentrated near the riverside,

* Annual Administration Report of Co-operative Societies for the year 1955-56.

CHAPTER 8. Trade. WHOLESALE TRADE.

known as Furza Ghat in Broach city. The capital employed by these Kariyana merchants and their turnover vary a good deal. It is extremely difficult to state the exact amount of capital investment or business turnover in respect of most of them. Nevertheless, inquiries show that they may be very roughly grouped into four classes; (1) dealers (numbering about 40) each with an average turnover of approximately Rs. 20,00,000; and invested capital of Rs. 5,00,000 or above; (2) dealers (numbering about 30) each with an average annual turnover of approximately Rs. 10 lakhs and capital investment of about Rs. 2 lakhs; (3) dealers (numbering about 100) each with an average annual turnover of about Rs. 5 lakhs and capital investment of about Rs. 1,00,000; and (4) dealers (numbering about 100) each with an annual turnover of Rs. 1,00,000 or less and capital investment varying between Rs. 25,000 and Rs. 50,000.

The following table gives the details of wholesale trade such as annual turnover of commodities in terms of quantity and value, sources of import and destinations of export:—

TABLE No. 7

BROACH DISTRICT—WHOLESALE TRADE OF SOURCES OF IMPORTS AND DESTINATIONS OF EXPORTS AND THEIR VALUE.

Commodity.	Annual Turnover in Rupees	Anuual turnover in Bengali Mds.	Sources of origin, value and quantity imported	Destinations, value and quantity exported
1. Pulses . ..	10,00,000	50,000	Khandesh, North Gujarat Madhya Pradesh. (Value and quantity as per columns 2 and 3 respectively).	—
2. Gur	21,60,000	1,20,000	Imported from U P. (Value and quantity as per columns 2 and 3 respectively).	—
3. Sugar ..	40,00,000	1,37,500	Imported from U. P. (Value and quantity as per columns 2 and 3 respectively.)	—
4. Edible Oils ..	20,00,000	40,000	Panchmahals, Madras, Khandesh, Saurashtra (Value and quantity as per columns 2 and 3 respectively).	—
5. Hydrogenated Oils.	10,00,000	—	Bombay, Berar, Khandesh Saurashtra (Value and quantity as per columns 2 and 3 respectively).	—
6. Oilseeds (Til and Groundnuts)	5,00,000	30,000	Khandesh, Panchmahals and Saurashtra (Value and quantity as per columns 2 and 3 respectively).	—
7. Cotton seeds	95,00,000	9,50,000	Local ginning factories	Bombay, Saurashtra Malabar, and Gujarat Value Rs. 82,50,000 and quantity in Bengali Maunds 8,25,000
8. Lang ..	40,00,000	4,00,000	Broach District. ..	Bombay: Value Rs. 32,00,000 Quantity in B. Mds. 3,20,000

Trade.
WHOLESALE TRADE.

Broach city serves as the chief receiving and distributing centre for the whole of the Broach district in respect of all these commodities and also for some neighbouring areas in respect of some of them.

These merchants deal on the basis of direct purchase and resale as well as on commission agency basis. Commission agents charge commission at 1% *ad valorem.* Moreover, if the deal is effected through a broker, brokerage at ¼ per cent. *ad valorem* is charged in addition. There is also a customary charity allowance to be charged at ¼ per cent. *ad valorem.* All these charges have to be paid by sellers in respect of locally produced goods meant for export out of the district, whereas they have to be paid by buyers in respect of imported articles. Commission agents frequently advance loans to the cultivators against goods stored in their godowns. They charge interest at the rate of six per cent. In respect of local produce, many agriculturists and village merchants bring their goods to the godowns of commission agents or of merchants. Imported goods are transported to the godowns with the help of local carting agents. Rent has to be paid for storage. There is no dearth of storage accommodation. The trade is reported to be brisk from December to March.

Grocery.

The grocery trade is one which is very closely related to the 'kariana' trade and is known popularly as '*Gandhianu*'. In grocery trade also, Broach city is the chief receiving and distributing centre for the whole of the district as well as for the southern talukas of Baroda district. There are about forty dealers of grocery in the whole district, out of whom twenty are located in Broach city where they are concentrated in Gandhi Bazar and Furza Ghat area. Out of these forty dealers, only nine transact business in large quantities, and the rest are more retailers than wholesalers. In Broach, there are some trades where any rigid distinction between wholesale and retail trade is not observed, and the grocery trade is one of them. A wholesaler may, if necessary, deal in small quantities and a retailer may, if market conditions are favourable, strike a bargain involving considerable quantities of goods. There are about two hundred different articles, inclusive of dry fruits, which are handled in the Broach market. It is estimated that goods weighing about 10,000 Bengali maunds valued at Rs. 25 to 30 lakhs are being handled per year. The usual mode of business is direct purchase and resale, customers being usually small shop-keepers of the district. It is gathered that an average dealer invests about Rs. 8,000 to Rs. 10,000 and handles annually about 175 Bengali maunds of grocery articles worth from Rs. 30.000 to Rs. 40,000. Most of the stock in trade is obtained from Madhya Pradesh, Uttar Pradesh, Rajasthan, and North Gujarat. The only marketing charges incurred in Broach city are Re. 0-2-6 per Rs. 100 brokerage, and Re. 0-3-0 local transaction charge per Bengali maund. The brisk season for trade is from November to March.

CHAPTER 8. — Trade. WHOLESALE TRADE. *Tea.*

The trade in tea is, in a sense, part and parcel of the grocery trade but a special mention of it has to be made in view of the considerable importance of Broach and Ankleshwar as distributing centres for tea for the whole of Gujarat, including Baroda, Kaira, Panchmahals and Surat districts. There are about twenty wholesale dealers in the district dealing only in tea and they handle about 15,00,000 lbs. of tea worth Rs. 30,00,000 per year. Tea is imported mostly from Calcutta. Only about 7,500 lbs. of Nilgiri tea worth Rs. 15,000 is imported. The consumption of tea in Broach district itself is about 10,00,000 lbs. It is reported that an average dealer is required to invest about a lakh of rupees in his business. The trade is not a seasonal one and is carried on evenly throughout the year.

Cloth.

Cloth is one of the important items in which trade is being carried on a wholesale basis in Broach District. There are about seventeen wholesalers in the district, out of whom twelve are located in the Broach city. The city dealers are concentrated in Katopore Bazar and Kelapith Bazar, the hub of the cloth market of the entire district. These dealers handle about 60,00,000 yards of cloth worth about Rs. 60,00,000. It is reported that an average dealer invests about Rs. 50,000 to Rs. 1,00,000 and annually handles cloth worth Rs. 1,50,000 to Rs. 15,00,000. Cloth is imported from Bombay and Ahmedabad. Three wholesalers import directly from mills, as they are agents of certain mills. Broach and Ankleshwar serve as receiving and distributing centres for cloth; mostly the wholesalers sell to local and taluka retailers and to some extent to other wholesalers. Local wholesalers give credit of eight to twelve months to other wholesalers, the accounts being settled at the close of the "season", or close of the year. The only marketing charge to be incurred by these wholesalers is the payment they have to make to carting agents at Re. 0-2-0 per Bengali maund. Goods are stored in the rear of the shops and no special godowns are hired for the purpose. The trade is reported to be brisk from February to April.

Cocoanuts.

One of the most important features of the trade of Broach is its entrepot trade in coconut. So far as trade in coconuts is concerned, Broach is the receiving as well as the distributing centre for Gujarat, Rajasthan, Panchmahals and some parts of Madhya Bharat. There are about fifteen wholesale dealers, all located in the city on Furza Ghat who, taken together, are reported to handle annually about 7,00,00,000 coconuts worth about Rs. 1,50,00,000. An average wholesale dealer is reported to be investing about Rs. 2,00,000 and handles per year 30 to 35 lakhs of coconuts amounting in value to about Rs. 6,00,000. Coconuts are purchased outright from local merchants in Ambur, Vaniambadi, Bezwada, Kakidana, Madras and Malabar coast. Broach merchants have direct connections with important retailers as well as wholesalers in the distributing centres. The consumption of coconuts in the district is less than one per cent. of the total imported in the district. The merchants own or hire godowns of considerable size

Trade.

WHOLESALE TRADE: *Timber.*

to stock their goods. For the whole of the year the trade is carried on at an even pace except during the 'marriage season' (January, February and May-June) when there is a temporary spurt in demand.

Timber is another important item in which wholesale trade is carried on in the district. But it is confined to Rajpipla and Netrang, which are the two big centres of lumbering. Merchants who have establishments at Rajpipla have establishments at Netrang also. There are seven wholesale timber merchants whose "pithas" are located on Rajpipla bank road and station road, Rajpipla. The rest of the timber merchants in the district are, strictly speaking, retailers, who buy goods from these wholesalers and sell direct to the ultimate consumer. These wholesalers annually handle goods to the tune of 1,50,000 to 1,75,000 cubic feet worth Rs. 6,00,000 to Rs. 7,00,000. It is reported that an average dealer annually invests about Rs. 70,000 and handles about 20,000 cubic feet of timber. The merchants bid for the right of extraction of timber from coupes earmarked for the purpose from year to year. Tenders are invited by the Forest department of the State Government and the highest offers are accepted. The contractors have to tender as earnest money 10% of the estimated value of the contract and 25% of the exact value of the tender on the declaration of the results of the tender, the remainder being paid at the time of clearing the goods. Timber is hauled from forests in carts. Sometimes trucks are used. But the prevalent method is to enter into casual contracts with *adivasi* workers who own carts, cut the timber and deliver it at Rajpipla or Netrang, as the case may be. They are paid anything between Rs. 2 to Rs. 3¼ per cubic feet of timber cut and hauled, the rate depending on the distance to be covered. Hardly ten per cent. of the total production of timber is consumed in the district. Most of it is exported to Ahmedabad, Baroda and Mehsana in North Gujarat. It is also exported in small quantities to Bombay and Saurashtra. As against the considerable exports of inferior timber made from the Broach district, there are imports of superior timber for local use to the tune of 35,000 cubic feet from Dangs and Dharampur forests. Timber merchants sell their goods through brokers, who assume full responsibility for taking delivery of the goods and for payment.

Timber is stored in big open compounds mostly rented and usually covered by iron sheets in rainy season. The months from January to June are busy months in which the trade is brisk. There are different qualities of timber and the price varies according to quality; but considering the average quality of timber to be had from Rajpipla and Khandesh forests, the current price is anything between Rs. 3-12-0 to Rs. 4-2-0 per cubic feet

Charcoal and Firewood.

Charcoal and firewood are in some respects allied to the timber trade. Most of the wholesale trade in charcoal and firewood is located at stations on the Ankleshwar, Rajpipla and Jhagadia-Netrang narrow gauge railway lines. The statistics given below refer in the

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WHOLESALE TRADE.
Charcoal and Firewood.

main to this area. Netrang, Rajpipla and Rajpardi are the chief centres of trade along the railway line. There are about thirteen wholesale merchants in these three centres, who among themselves annually handle about 40,000 Bengali maunds of charcoal worth Rs. 2,00,000 and about 62,500 Bengali maunds of firewood worth Rs. 62,500. An average dealer is reported to be investing about Rs. 25,000 and annually handling about 6,000 Bengali maunds of charcoal worth about Rs. 30,000 and firewood to the tune of about 7,500 Bengali maunds. As regards the practice of obtaining rights of exploitation from the Forest Department and the system of advancing money to labourers who bring firewood and charcoal to these centres, the practices observed are the same as in the timber trade. Goods are sold directly on purchase-resale basis.

The following table gives the analysis of the costs usually incurred by a trader in the course of his transactions :—

TABLE No. 8

BROACH : MARKETING CHARGES IN FUEL TRADE.

Items	Charcoal	Firewood	Remarks
1. Royalty ...	Rs. 0-8-0 per B. Md.	Rs. 0-0-6 per B. Md.	
2. Cartage ...	Rs. 0-12-0 per bag	Rs. 0-8-6 per B. Md.	
3. Labour cost ...	Rs. 1-8-0 per bag (approximately one Bengali Md.)	Re. one per 10 Bengali maunds	
4. Local cartage	Rs. 0-2-0 per Bag	Rs. 0-0-6 per B. Md.	
5. Loading and unloading ...	Rs. 0-1-6 per Bag	Rs. 0-0-6 per B. Md.	
6. Station loading	Rs. 0-1-0 per Bag	Rs. 0-0-6 per B. Md.	
7. Wharfage ...	Rs. 0-1-6 per Bag	Rs. 0-0-6 per B. Md.	This includes splitting in the case of firewood.
8. Driage ...	Rs. 0-2-0 per Rupee	Rs. 0-2-0 per Rupee in value	
9. Commission (for goods bound for Bombay, Surat & Ahmedabad)	Rs. 0-4-0 B. Md.		

Locally, only 5,000 bags of charcoal are consumed and the rest of the charcoal and the firewood are exported to Surat, Ahmedabad and Bombay. As regards marketing and storage the practice in this trade is the same as in the case of timber. The period between April and June is considered to be the brisk season for the trade.

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WHOLESALE TRADE.
Hardware.

Hardware is one of the items in which wholesale trade in the strict sence of the term is not to be found in the district of Broach. Nevertheless, there are thirty-three big-stock holders who do retail business but are always in a position to meet a big order. They are concentrated in Broach city, particularly in Katopore Bazar. Since the term "hardware materials" covers such diverse articles as screws, nails and hinges as well as builder's instruments, it is difficult to give a quantitative estimate of the annual turnover. Business turnover in terms of value, however, is estimated at Rs. 20,00,000. An average dealer, that is a holder of substantial stocks, is reported to invest about Rs. 12,000 and to handle annually goods worth Rs. 45,000. Broach, being the centre of this trade, serves the entire district as the distributing centre for hardware goods imported direct from Bombay. Business is carried on direct purchase and resale basis. The only marketing charge involved in the transactions is the cost of *mukadami* which incidentally covers carting at the rate of As. 3 per Bengali maund. Very little quantity of goods is re-exported out of the district. Goods are stored either in godowns or in the rear portions of shops. As in the case of other trades, the hardware trade remains brisk from January to May.

Medicines and Provisions.

This trade is also one in which retail as well as wholesale trade is being carried on together by holders of large stocks. There are three holders of large stocks in the city of Broach, who deal in large quantities when largescale transactions are found profitable. Among themselves they are reported to handle goods worth Rs. 4,00,000 per year. It is reported that a dealer of this category employs about Rs. 75,000 as capital per year and has a turnover of about Rs. 1,42,000 per year. Trade is carried on on purchase and resale basis. The stock in trade is obtained in most cases from Bombay importers in the case of imported goods and from manufacturers in the case of indigenous goods. Locally produced goods, only a couple of items, are, however, exported out of the district, but such exports are rather insignificant. Goods are sold directly to local consumers as well as taluka consumers and chemists. The months of February, March, April, July and August are those in which trade is brisk. Storage of goods presents hardly any problem as the shops themselves are used for storage purposes. The only marketing charge involved is the *mukadami*, which includes local cartage charges at the rate of 2½ to 3 annas per Bengali maund.

Cutlery Goods.

There are three wholesale dealers dealing in cutlery goods; they are located in Katopore Bazar, Broach. They handle among themselves goods worth about Rs. 1,50,000 to Rs. 2,00,000. An average wholesaler is reported to be investing about Rs. 30,000 to Rs. 35,000 per year and handling annually goods worth Rs. 70,000. Goods are sold direct to small dealers and wholesalers throughout the district and in the city. The stock in trade is imported from Bombay. Out of the goods imported in Broach city, over 60 per cent. are re-exported to places in the district such as Jambusar. Amod. Sarod,

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Achot, Samni, Tankaria etc. Problems of storage and marketing are simple, since godowns are easily available and carting agents charge on an average Re. 0-8-0 per packet. Trade is reported to be brisk during the cotton season.

Fish.

Of the perishable goods in which trade is carried on in the district, the most important are fish, and fruits and vegetables. Of these two, the fish trade is highly seasonal. Fresh-water fish are caught from the Narmada river in the vicinity of Broach and even downstream. It is only in the monsoon that this trade flourishes.

There are about fourteen wholesale dealers, most of them located at Bahucharajee and Macchiwad in Broach city, near the river bank. They annually handle fish worth Rs. 3,00,000. An average dealer invests Rs. 8,000 per year and handles fish worth Rs. 15,000 per year. Wholesale dealers advance loans without interest to the fishermen in the off-season and by way of recovery obtain from them their daily catch. This daily production is railed in cold storage to Bombay and, to a very small extent, to Surat through commission agents who sell the goods at the rates current there. After disposal of the goods, they deduct their commission and send the remainder of the amount to the Broach wholesalers who, in turn, after deducting their profits, make credit adjustments in favour of the fishermen. In order to ensure that the fishermen who borrow money from him do not sell their catch to any other dealer, the wholesaler has to send his representative to the river bank. About 60 per cent. of the production is locally consumed and goods worth Rs. 1,20,000 are exported mainly to Bombay retailers through brokers. The following is the analysis of marketing costs incurred by a wholesaler in respect of a score of fish exported to Bombay.

Cost of ice ...	Rs. 2- 8-0
Cost of packing ...	Re. 0-12-0
Local cartage ...	Re. 0-12-0
Railway freight ...	Rs. 4- 0-0
Miscellaneous local expenses ..	Re. 0- 8-0
Bombay expenses ...	Re. 1- 0-0
Commission Agent's remuneration ...	10 per cent. of value.

Besides these items, the profits of wholesalers are deducted before the value received in Bombay is passed on to the fishermen. Recently (1956), however, a cooperative society of fishermen has been formed, which does considerable business. Even though this society is quite in its infancy, sometimes even established traders find it difficult to obtain adequate supplies because of its competition.

Fish does not present any problem of storage because it has to be disposed of immediately. Only a small quantity of salted fish is stored. The problem of transport is the most important one; but it is only in periods of acute wagon shortage that fish-merchants find it difficult to get adequate rail facilities.

Fruits and Vegetables.

There is some amount of market-gardening in Broach and Ankleshwar talukas and, therefore, wholesale trade in fruits and vegetables is centred in Broach and Ankleshwar. There are about thirty wholesalers in these two markets. Fresh and leafy vegetables are imported from places in the vicinity of Broach, such as Sakkarpara Bet, Taria Bet, Dhanturia Bet, Govali Bet, Kasia, Mandva, Shukaltirth taluka, and Padra taluka (Baroda district). Fruits are imported from Ahmednagar district, Delhi, Bombay, Pardi and Bulsar talukas of Surat district and distributed in the district through these two centres. Fruits locally grown are also exported to Bombay, Navsari and Bilimora. Onions and garlic are imported from Saurashtra, and potatoes from U.P., Ceylon and Deesa in North Gujarat. Trade is being carried on on purchase and resale basis as well as on commission basis. The stock in trade in respect of imported goods is obtained through brokers from wholesalers and locally produced goods are obtained by retailers on commission agency basis from growers who thereby get the advantage of an open auction. Loans are often advanced by commission agents to growers but no interest is chargeed. The rate of commission is one anna in a rupee and the rate of discount (*Vatav*) in respect of retailers is one pice in a rupee. These are the only marketing charges. Charges for carting are to be taken into account in respect of imported stuff only, for the locally produced goods are brought to the market by the growers themselves.

The period between November and June is considered to be the brisk season for this trade. Storage presents little difficulty because godowns at reasonable rates are easily available.

Other Centres of wholesale trade.

Although wholesale trade is chiefly centred in Broach, it is carried on to a small extent in other taluka centres also. Below are given details of wholesale trade in these centres :—

Ankleshwar:—In Ankleshwar, wholesale trade is carried on in tea, *gur*, kerosene, cotton seed, cereals and pulses, and cloth. There are operating six wholesale merchants whose annual turnover is 15,00,000 lbs. of tea of the value of Rs. 30,00,000. Ten wholesalers carry on trade in *gur* of the quantity of 67,000 *kacha* maunds valued at Rs. 4,50,000. Three wholesalers in kerosene distribute 30,000 tins of kerosene oil a year. The wholesale trade in cotton seed amounts to 4,56,000 maunds worth more than Rs. 50,00,000. The wholesale trade in cereals and pulses is concerned with jowar, rice, bajri and *tuver* In all, there are 30 wholesale dealers, whose annual turnover is 37,500 maunds of jowar worth Rs. 6,00,000; 40,000 maunds of rice, worth Rs. 7,20,000; 25,000 maunds of bajri worth Rs. 40,000 and 5,000

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Other Centres of wholesale trade.

maunds of *tuver* worth Rs. 1,20,000. The wholesale trade in cloth is in the hands of four dealers, whose annual turnover is 2,000 bales (30,00,000 yards) valued at Rs. 20,00,000.

Amod :—There are about fifteen wholesale merchants at this centre who carry on trade in respect of cotton, lang, wheat and jowar.

Palej (Broach taluka) :—Palej is a centre of trade for cotton and cottonseeds. Besides these two commodities, lang, lang-dal, cloth, fish, sugar, tea, coconuts and wet dates are handled to a considerable extent.

Jambusar :—There are three wholesale trade centres namely, Jambusar, Kora and Kavi with 300, 100 and 100 merchants respectively. Trade is being carried on at these centres in respect of cotton, *tuver*, seasmum, *guvar*, wheat, jowar, bajri, castorseeds and *kodra*.

Jhagadia :—There are three centres of wholesale trade in this taluka, namely, Jhagadia, Rajpardi and Umalla. The wholesalers in these places number 70, 35 and 25 respectively. Cotton, cottonseeds, groundnut and groundnut-oil are the articles traded in.

Nandod :—In Rajpipla, wholesale trade is carried on in timber, charcoal, fuel, cotton and cottonseeds. There are six firms dealing in cotton, sixteen merchants dealing in cottonseeds and six in firewood-charcoal.

Sagbara :—Selamba is the only centre in this taluka where wholesale trade is carried on. There are wholesale dealers in such commodities as *tuver*, jowar, castorseeds, seasmum and gram.

Vagra :—Vahial and Vagra are two trade centres in this taluka. Only cotton is dealt with. There are two ginning factories, one in Vahial and one in Vagra and they are the sole dealers. Trade in other commodities is not on a large scale.

REGULATED MARKETS.

In 1939, the Bombay Agricultural Produce Markets Act (XXII) of 1939 was passed for the better regulation of buying and selling of agricultural produce and establishment of markets for agricultural produce. Upto 1st September, 1956, regulated markets were established in Broach district at Broach, Jambusar, Ankleshwar and Jhagadia.

Some effort was made in the late twenties and in the thirties of this century to eliminate unfair practices in the commercial transactions of agricultural produce and to provide for better regulation of buying and selling of agricultural produce.

The Bombay Agricultural Produce Markets Act 1939.

Bombay Cotton Markets Act was passed in 1927, but it was subsequently repealed and replaced by the Bombay Agricultural Produce Markets Act, 1939. The Royal Commission on Agriculture (1928) and the Bombay Provincial Banking Enquiry Committee (1931) stressed the need for affording facilities and protection to the agriculturists in the disposal of the

marketable surplus of farm produce by establishing a chain of regulated markets. "The prosperity of the agriculturists and the success of any policy of general agricultural improvement", observed the Royal Commission, "depend to a very large degree on the facilities which the agricultural community has at its disposal for marketing to the best advantage as much of his produce as surplus to its own requirements".

CHAPTER 8. — Trade. *The Bombay Agricultural Produce Market Act 1939.*

Indian agriculturists are generally illiterate and traders were found to be taking undue advantage of the illiteracy prevalent among the agriculturists, whose economic condition had worsened on account of the "Great Depression" of 1930's. In a situation of this type, intervention by Government can help in setting matters right. The Government of Bombay therefore enacted in 1939 the Bombay Agricultural Produce Markets Act, which was brought into force with effect from November 1939 and rules under the Act were prepared and finally promulgated in 1941.

This Act was passed with the object of establishing equity in the bargaining power between agriculturists and merchants, promoting mutual confidence, preventing malpractices and giving a fair deal to farmers. With these objects in view, the legislation sought to regulate the various features of agricultural marketing.

Broach Market

The Broach Agricultural Produce Market was established in 1948 to regulate transactions in cotton (ginned and unginned) and long peas. The market area consists of Broach and Wagra talukas and Amod peta. The principal market yard is at Vejalpore. The Committee obtained 5,418 square yards at Haldar from Government, and in 1955 it was declared as a sub-market yard.

The Market Committee at Ankleshwar was started in 1953-54 after the application of the Act in 1953 and the Committee at Jambusar was established in September, 1951. The Jhagadia Committee, though already constituted in 1954 had not started functioning till 1956. The Act provides for the establishment of market Committees consisting of 15 members, seven representing agriculturists, 3 representing traders' constituency, three nominated by Government, one by the local authorities and one representative of co-operative societies. But there are variations in this arrangement according to local conditions. In Ankleshwar Committee, no representation is given to co-operative societies and instead it is given to traders. The Jambusar Committee consists of 6 representatives of agriculturists, 5 of traders, one of local authorities and 3 government nominees. The Broach Committee has acquired for its yard, land in Vejalpore near Broach. It has also constructed a well and a trough.

Methods of Sale.

Producers bring cartloads of their produce to the market yard i.e., to the General Commission Agents' shops and godowns. That Agent enters the names of the owners of produce together with the quantity of each commodity brought by them in "Arrivals and Sales

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Methods of Sale.

Register", supplied by the market committee. Cess clerks of the market committee collect cess on the produce brought to individual General Commission Agents' shops and godowns for sale. The produce is then unloaded and weighed by licensed weighmen in the presence of the seller and General Commission Agent. The weights are then entered by the weighmen in weighment slips in triplicate the first copy being given to the seller, the second to the General Commission Agent and the last one retained by the Market Committee. The produce is then sold by open auction (as specifically mentioned in the Act) and not by secret signs under cover, as was done previously. The secretary of the Market Committee and the licensed purchasers move from shop to shop, holding auction sales during sale time. Immediately after the bargin is struck, an agreement is entered into and signed by the seller, buyer and the Commission Agent in the presence of an official of the market committee. Once the bargain is struck, on no account is variation permitted.

A copy of the agreement is given to the office of the market committee. The buyer then takes delivery of the purchased produce on the same day or before 12 noon next day, and pays the amount due to him to the General Commission Agent within three days from the date on which the bargain is struck. However, it is incumbent on the General Commission Agent to make immediate payment to the cultivator after deducting all allowances, such as commission, brokerage, godown charges, insurance, *hamal*, weighment charges etc. The Commission Agent takes receipt of payment made to the cultivator in triplicate, the original being given to the cultivator, one to the Market Committee office and the last one retained by the General Commission Agent. These receipts are checked by the staff of the market committee, verifying the rates and weights. If there are extra charges in these receipts, it is the duty of the market committee to see that they are refunded to the cultivator by the General Commission Agent concerned.

The market committee displays the prices of the regulated commodities ruling in the market and other important markets of the state. The sales are conducted by open auction. The market committee is, however, not able to effect sales of cotton by open auction on its market yard on account of opposition from gin owners. The sales of cotton are, therefore, conducted in the gins. The other commodities viz., lang and peas are sold by open auction in the market yard. As regards cotton the produce is not sold in the market yard but is taken to the gins where it is weighted, measured and surveyed and sold. The Market Committee has made all efforts to improve the relations of traders in cotton with the committee and it is expected that cotton will also be sold by open auction in the market yard in the near future.

Income and Expenditure.

The income and expenditure figures of the Broach Market Committee, as given in its Annual Report reveal that in 1955-56 the committee's income was Rs. 13,966-4-3 and expenditure Rs. 14,905-6-0

hence the deficit was to the tune of Rs. 939-1-9. Similar figures for the previous year show that the income was Rs. 20,747-2-9 and expenditure Rs. 14,809-5-9 hence the surplus was Rs. 5,937-13-0. The reason for deficit in the year 1955-56 was that the committee did not get the full expected amount of cess.

Market Functionaries.

A market can successfully function only when there is co-operation amongst the various participants i.e., the sellers (agriculturists), buyers, the General Commission Agents and the personnel of the market committee supervising the transactions. The objectives of a well organized market can only be served when those participating in the market behave properly. The Expert Committee (1955) appointed to review the Bombay Agricultural Produce Markets Act, 1939 have also mentioned in their report that the success or failure of a regulated market depends mainly on the behaviour of market functionaries. Agriculturists are also users of the market; they act through the General Commission Agents and as such it is these Agents who are the main market functionaries on whom depends the successful working of the market.

The following table gives the number of licence holders in the Broach market for the years 1954-55 and 1955-56.

TABLE No. 9

TABLE SHOWING TYPES OF LICENCE HOLDERS IN THE REGULATED MARKET, BROACH, FOR THE YEARS 1954-55 AND 1955-56.

Types of Licences	Licence Fee	1954-55	1955-56
'A' Class Traders	60	30	23
'B' Class Traders	30	136	209
'C' Class Traders	10	18	55
General Commission Agents ...	75	23	22
Dalals	25	7	12
Weighmen 'A' Class	5	9	8
Weighmen 'B' Class	3	48	19
Hamals	1	18	18

The qualifications of market functionaries depend upon the nature of the functions. The General Commission Agent is the mainstay of the market, because as an agent to the seller, he is the custodian of the goods belonging to his principal and he is responsible for making payment to him. He is also expected to furnish a statement of the number of packages and its size, grade and quality to the market committee and render the best service to the seller. To

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REGULATED MARKETS.
Market Functionaries.

discharge the last function, he must be in close touch with the market mechanism. To qualify for the job, a Commission Agent must, therefore, have sufficient resources to finance his business, must have a shop where the goods can be inspected and auction sale held, a godown where the produce can be stored, correct weights etc.

In the opinion of the Expert Committee, the financial solvency of traders, who are licensed by the market committee, is the main criterion and he must have a shop, godown, stamped weights and measures and other personnel to help him. The traders part conduct, his undertaking to conform to the provisions of the Bombay Agricultural Produce Markets Act, 1939, and to the directions of the market committee and his capacity and experience in trading activities are also important factors in the successful working of the market.

Weighmen and *hamals* play an important role in the dispensing of agricultural produce. Regulated commodities are weighed by these licensed weighmen for which they get remuneration from the sellers i.e., the agriculturists. Weighment is done on the premises of the General Commission Agents.

The other functionaries in the market are composed of a heterogeneous group playing a secondary role in connection with the transfer of goods from one place to another. They include cartmen and other transport operators. Their contribution to the successful functioning of a regulated market is indirect.

The following table shows arrivals of regulated commodities viz., Lang, peas and cotton in the Broach market for the years 1952-53, 1953-54, 1954-55 and 1955-56 :—

TABLE No. 10

ARRIVALS OF REGULATED COMMODITIES IN THE BROACH MARKET

(Bengali Maunds)

Year	Lang	Peas	Cotton (unginned)	Cotton (ginned))
1952-53	37,513	48	2,72,124	7,77,595
1953-54	1,62,611	331	3,21,257	1,07,646
1954-55	3,28,913	1,873	2,19,714	78,005
1955-56	1,43,022	1,997	6,01,836	8,163

*Prices of regulated Commodities.**

In September 1955 the price of *lang* was Rs. 59 per 16 maunds and it increased gradually to Rs. 94 by August 1956 and during the major part of the year it fluctuated between Rs. 80 and 90 per 16 maunds. Average p ice of *lang* was Rs. 9-10-0 per Bengali maund.

* As reported in the Annual Reports of the Market Committee.

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Price of peas was Rs. 64 per 16 maunds in the beginning, and increased gradually to the extent of Rs. 117 by August 1956 during this period it fluctuated between Rs. 85 and 95. Average price of peas was Rs. 11-10-6 per Bengali Maund.

Cotton price was Rs. 460 per bhar in 1955 and it gradually went up to Rs. 525 per *bhar* by August 1956.

Co-operative Institutions.

The following table gives an idea of the working of co-operative societies in the Broach market during 1955-56 :—

TABLE No. 11

WORKING OF CO-OPERATIVE SOCIETIES IN THE BROACH MARKET DURING 1955-56.

Name of the Society	Cotton (unginned) Bengali Maunds	Cotton (ginned) Bengali Maunds	Cotton bales.
1. Karjan Cotton Sale and Ginning Co-operative Society ..	—	9,894	2,174
2. Haldarva Group Co-operative Multipurpose Society	—	4,841	989
3. Aldar Group Co-operative Multipurpose Society	—	20,542	4,325
4. Kisnad Group Co-operative Multipurpose Society	—	6,362	529
5. Janghar Group Co-operative Multipurpose Society	912	—	—
6. Samsod Group Co-operative Multipurpose Society	—	3,580	751
7. Manch Uprali Group Co-operative Multipurpose Society . ..	—	1,433 3/4	302
8. Kamboli Group Co-operative Multipurpose Society .	—	1,889 1/2	400
9. Ghodi Group Co-operative Multi purpose Society . ..	—	1,269	270
10. Nabipur Group Co-operative Multipurpose Society	3,199	—	—
11. Dabhali Group Co-operative Multipurpose Society	533	—	—
12. Kavitha Group Co-operative Multipurpose Society	1,256	—	—
13. Kothivantarsa Group Co-operative Multipurpose Society	1,280	—	—
14. Sarbhan Group Co-operative Multipurpose Society	3,084	—	25
15. Vilayat Group Cotton Sale Co-operative Society	—	23,117	4,908
16. Broach District Ginning and Pressing Society	—	23,230 3/4	4,547
17. Amod Group Co-operative Cotton Sale and Seed Supply Society ..	—	29,870	6,547
Total ..	10,264	1,26,029	25,767

During the year under review i.e. 1955-56, 1226 carts of regulated commodities arrived at the market yard. An attempt has been made here to show monthly arrivals of carts of regulated commodities on the market yard.

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Year	Month	Lang No. of carts	Peas No. of carts
1955	September	—	—
	October	—	—
	November	37	—
	December	45	—
1956	January	12	25
	February	427	44
	March	239	20
	April	145	15
	May	135	14
	June	67	1
	July	—	—
	August	—	—
	TOTAL	1,107	119

Market cess.

The Broach Market Committee collected during the year 1955-56 market fee or cess worth Rs. 2,234-11-6 in case of *Lang*; Rs. 31-3-3 in case of peas, while Rs. 9,403-11-0 in case of cotton (unginned) which is credited to the Cess Deposit Fund, and Rs. 340-2-6 for ginned cotton. It had a permanent fund of Rs. 40,522-5-3 at the end of the year.

The committee has decided to open sub-market yards at Palej and Nabipur. This committee is represented on the Central Advisory Committee of Regulated Markets and hence the benefit of proper direction in respect of general working is also available to the Market Committee.

Market Committee Ankleshwar.

The Bombay Agricultural Produce Markets Act, 1939 was applied to Ankleshwar area in 1953 and the market committee started functioning from that year. The market area comprises Ankleshwar taluka and Hansot Mahal. The principal market yard is on the station road, Ankleshwar. Three more sub-market yards were established at (1) Hansot (2) Elav and (3) Panoli during the year 1954-55.

Regulated Commodities.

The market committee has been established to regulate transanctions in cotton (both ginned and unginned), groundnut (shelled and unshelled), *Lang, Mug, Til, Math, Val* and *Tuver*. But from 1955-56, *Mug, Til, Val, Math, and Tuver* were made unregulated by Government notification.

Market Functionaries.

The following table gives an account of various market functionaries operating in the Market :—

TABLE No. 12

STATEMENT SHOWING NUMBER OF LICENCE HOLDERS IN ANKLESHWAR MARKET

Licencees	Licence Fee	1954-55	1955-56
'A' Class Traders	75	22	26
'B' Class Traders	30	16	3
'C' Class Traders	10	134	101
General Commission Agents ...	75	8	10
Dalals	30	7	4
Weighmen	5	4	8
Hamals	1	—	7

The following table shows arrivals of regulated commodities in Ankleshwar Market for the years 1954-55 and 1955-56:—

TABLE No. 13

STATEMENT SHOWING ARRIVALS OF REGULATED OCOMMODITIES IN THE ANKLESHWAR MARKET.

Name of the Commodity	1954-55	1955-56
1. Cotton (unginned)	3,34,210	4,19,106-21
2. Cotton (ginned)	—	—
3. Groundnut (shelled)	15,765	16,037-14½
4. Groundnut (unshelled)	—	—
5. Lang	17,023	7,149-20½
6. Mug	259	—
7. Til	14	—
8. Muth	9	—
9. Val	67	—

Income and expenditure figures for the year 1955-56 show that the Market Committees' income was Rs. 11,133-8-5 and expenditure Rs. 8,002-5-0, the surplus being Rs. 3,131-3-5. Similar figures for 1954-55 are : income Rs. 13,157-0-6 expenditure Rs. 5,792-13-3, surplus Rs. 7,364-3-3 which was credited to the Permanent Fund. The committee earned Rs. 4,300 as licence fee from various licencees operating in the market and Rs. 8,806-14-6 by way of market cess on agricultural produce. The financial position of the committee has also improved. Its permanent fund as at the end of August 1956 stood at Rs. 11,203-3-11.

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Prices of regulated commodities.

The following were the prices during 1955-56 in Rupees.

(per Bengali Maund)

Commodity	Maximum	Minimum	Average
Groundnut (shelled)	18-2-3	10- 4-0	12-14-0
Lang	9-8-0	7- 6-9	8-11-9
Cotton (unginned)	43-9-3	39-14-9	41-12-0

Market cess.

The Committee collected Rs. 6,767-14-9 during 1955-56 by way of Market fee (cess), which included Rs. 6,525-5-3 for cotton, Rs. 128-1-0 for groundnut and Rs. 114-8-6 for *lang*. Similar figures for 1954-55 show that the committee earned Rs. 5,739-12-9 of which more than 75% was from cotton.

The Ankleshwar committee is represented on the Advisory Committee of Regulated Markets for Gujarat and as such it received instructions as to the successful working of the Act.

Jambusar Market Committees.

A market committee was established at Jambusar in the year 1951. The whole of Jambusar taluka has been declared as the "market area". Cotton (ginned and unginned) bavto, kodra, jowar, pulses, sesamum etc, are regulated. For market yard, the committee has acquired lands in the village Kavi and Kora and efforts are made to do so in regard to land at Jambusar where the committee has set up a temporary market yard.

Market Functionaries.

The following table gives the number of licence holders in the Jambusar market for the years 1954-55 and 1955-56.

TABLE No. 14

STATEMENT SHOWING NUMBER OF LICENCE HOLDERS IN THE JAMBUSAR MARKET.

Licencees	1954-55	1955-56
'A' Class Traders	54	105
'B' Class Traders	36	53
'C' Class Traders	278	452
General Commission Agents	9	17
Dalals	3	—
Weighmen	10	10

During the year 1955-56, 2,85,716 Bengali maunds of regulated commodities were brought to the market. The income and expenditure figures for 1954-55 and 1955-56 indicate that after meeting

all the expenditure there was a surplus of Rs. 634-6-9 in 1954-55 and Rs. 9,181-3-9 in 1955-56. The committee earned Rs. 13,735 by way of licence fee from various types of licencees and Rs. 6,043-0-9 by way of market cess or fee.

Rates of remuneration were fixed after amending sub-clause 44 of the Act. They are shown below:—

Category.	Commodity.	Unit.	Rate.
Commission	Cotton	1 Bhar	0- 8-0
,,	Other commodities		0-12-0 (per cent.)
Dalali	All commodities	1 B. md.	0- 0-3
Hamali	Cotton	2 B. mds.	0- 0-3
,,	Other commodities	1 B. mds.	0- 0-9

These rates are paid by the sellers.

Co-operative Societies.

Seventeen different types of co-operative societies operate in the Jambusar market. In the table that follows an attempt has been made to show the business transacted by them during 1954-55 and 1955-56 :—

TABLE No. 15

STATEMENT SHOWING THE BUSINESS TRANSACTED IN RESPECT OF COTTON BY CO-OPERATIVE SOCIETIES IN THE JAMBUSAR MARKET.

(Bengali Maunds)

Name	1954-55	1955-56
1. The Kalak Co-operative Multipurpose Society Ltd.	22,695	22,695
2. The Nobar Group Co-operative Multipurpose Society Ltd. ..	4,952	14,446
3. The Kavi Group Krishi Mandal	3,036	4,780
4. The Kavi Group Agricultural Producers Sale Society Ltd. ..	34,836	26,997
5. The Kavi Khedut Mandal	4,178	1,629
6. The Kangam Group Co-operative Multipurpose Society Ltd...	1,298	5,958
7. The Shigam Group Co-operative Multipurpose Society Ltd...	2,536	8,741
8. The Janata Co-operative Purchase & Sale Union Ltd. ..	1,652	8,161
9. The Ankhi Group Co-operative Multipurpose Society Ltd. ..	—	5,018
10. The Nhar Group Co-operative Multipurpose Society Ltd. ..	—	1,497
11. The Runad Group Co-operative Multipurpose Society Ltd. ..	—	698
12. The Sarod Group Co-operative Multipurpose Society Ltd. ..	—	2,368
13. The Nadlad Group Co-operative Multipurpose Society Ltd...	—	300
14. The Tundaj Group Co-operative Multipurpose Society Ltd...	—	1,871
15. The Khanpur Group Co-operative Multipupose Society Ltd...	—	1,827
16. The Jantran Group Co-operative Multipurpose Society Ltd...	—	7,808
17. The Kavi Group Co-operative Multipurpose Society Ltd. ..	—	16,831

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VILLAGE SHOPKEEPERS.

Village shopkeepers occupy an important place in the organization of trade in rural areas. Almost every village has one or more shopkeepers who provide its inhabitants with their day to day requirements. The following statement gives the estimated number of shops in various talukas:—

TABLE No. 16

NUMBER OF SHOPS (1949-50) EXCLUDING THOSE IN TOWNS OF BROACH, ANKLESHWAR, JAMBUSAR AND RAJPIPLA.

Name of the taluka or mahal	No. of villages	No. of shops
Amod	55	426
Ankleshwar	54	114
Broach	99	387
Dediapada	197	19
Hansot	46	196
Jambusar	80	385
Jhagadia	166	246
Nandod	220	121
Sagbara	96	17
Vagra	69	183
Valia	98	117
Total ...	1,180	2,211

This statement shows that on an average there are two shops for every village. In the case of Jambusar and Hansot the average per village works out at more than four shops; in the case of Wagra and Broach three shops, and in the case of the remaining talukas less than two. Almost every alternate village in Nandod taluka. nearly five villages out of every six in Sagbara taluka and nearly nine villages in every ten in Dediapada taluka have no shops and they have to draw their daily necessities from shops in neighbouring villages. The talukas of Dediapada and Sagbara are ill-equipped as regards shops, due no doubt to the small size of the villages and their inaccessibility because of forests and hills.

Except grain, which he buys from local producers, the village shopkeeper draws his stock in trade from the large towns with which he has business relations and where probably he gets credit facilities. His stock generally includes grain, groceries, raw and refined sugar, salt, oil, *ghee*, spices, hydrogenated oil, coconuts, washing soap, tea, kerosene, tobacco, areca nuts and other sundry articles required by people for their daily use. Even toilet articles are quite

common in rural areas. Though every dealer does not keep a stock of cloth, it is not always necessary for the villagers to go to the taluka headquarters for purchasing cloth, as cloth shops are located at least in a few villages of a taluka. Besides *sarees*, *dhoties*, and hand-spun and hand-woven cloth, the cloth merchants keep stocks of various kinds of mill-made cloth. Exchange of commodities rarely takes place, because the cash nexus has become quite common. The village shopkeepers usually act as suppliers of credit, both directly by loans of cash and indirectly by sales on credit. They themselves or sometimes their agents go to market towns and fairs to buy and sell their merchandise. A few shopkeepers doing business in villages and possessing sufficient resources deal in building materials, transport vehicles, machinery, fuel and other manufactured commodities. The number of such shops in the talukas is very small.

Shops Registered under Sales Tax Act.

The following statement compiled from quarterly returns under the Bombay Sales Tax Act, 1946 gives an idea of the volume of business done by the big shops:—

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TABLE No. 17

STATEMENT SHOWING THE NUMBER OF REGISTERED DEALERS (EXCLUDING THE TOWNS OF BROACH, ANKLESHWAR, JAMBUSAR AND RAJPIPLA) AND THEIR TOTAL TURNOVER FOR THE YEAR 1955-56.

(Figures of Gross Turnover in thousands)

1	Foodstuff and Hotels		Clothing and Consumers Goods		Building materials		Transport and vehicle goods		Machinery and Capital goods		Fuel and Power		Industrial Commodities		Miscellaneous		Total of all Commodities	
	No. 2	G. T. O. 3	No. 4	G. T. O. 5	No. 6	G. T. O. 7	No. 8	G. T. O. 9	No. 10	G. T. O. 11	No. 12	G. T. O. 13	No. 14	G. T. O. 15	No. 16	G. T. O. 17	No. 18	G. T. O. 19
		(Rs.)		(Rs.)		(Rs.)		(Rs.)		(Rs.)		(Rs.)		(Rs.)		(Rs.)		(Rs.)
1. Broach Taluka	74	8,979	41	1,994	11	730	—	—	—	—	—	—	58	18,168	15	2,287	199	32,158
2. Ankleshwar Taluka ..	8	1,766	2	90	—	—	—	—	—	—	—	—	4	957	1	6	15	2,819
3. Jambusar Taluka ..	11	950	1	82	—	—	—	—	—	—	—	—	17	4,230	—	—	29	5,262
4. Rajpipla Taluka	4	534	—	—	1	119	—	—	—	—	—	—	9	3,957	1	121	15	4,731
5. Jagadia Town and Taluka	38	3,049	12	828	2	129	—	—	—	—	1	16	15	5,447	4	250	72	9,719
6. Wagra	15	1,301	6	143	1	35	—	—	—	—	—	—	23	7,518	1	2	46	8,999
7. Hansot	12	536	8	426	—	—	—	—	—	—	—	—	1	4,000	—	—	21	4,962
8. Amod	22	2,733	1	88	4	147	—	—	—	—	1	30	15	4,146	9	319	52	7,463
9. Valia	9	577	4	462	4	99	—	—	—	—	1	12	5	1,611	2	64	25	2,825
10. Sagbara	2	188	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	188
11. Dediapada..	1	40	—	—	1	110	—	—	—	—	—	—	—	—	—	—	2	150
TOTAL ..	196	20,653	75	4,113	24	1,369	—	—	—	—	3	58	147	50,034	33	3,049	478	79,276

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Since the turnover of most of the retail shops in the Broach district does not reach the minimum prescribed for registration under the Bombay Sales Tax Act (Rs. 10,000 in the case of importers and Rs. 30.000 in case of other dealers), a considerable number of retail shops fall outside the scope of the statement. During the year 1955-56, there were 478 dealers registered under the Act and their gross turnover amounted to Rs. 7,92,76,000. Most of the registered dealers fall under the categories "Foodstuffs and Hotels" and "Clothing and Consumer goods". The table reveals that out of the total number of dealers, those under. "Foodstuffs and Hotels" from the largest group (196) with a total turnover of Rs. 206,53,000 followed by those in "Industrial Commodities" (147) with a total turnover of Rs. 500,34,000. There are, however, no dealers in the group of "Transport and Vehicle goods" and "Machinery and Capital goods" The other categories were found only in Nandod taluka, Jhagadia taluka, Broach taluka, Hansot town and Valia mahal.

Next in importance to the village shop-keepers are the miscellaneous institutions such as fairs, weekly bazars and pedlars who play quite a considerable part in the distribution of goods. In the fairs and weekly bazars held at a few places in the district it is the distribution rather than the assembling of goods which is predominant, for agricultural produce is rarely brought to such fairs and bazars for sale.

FAIRS.

There are quite a number of fairs associated with important deities and religious festivals where considerable quantities of consumer goods, eatables and manufactured goods are brought for sale. In the year 1948-49 the number of such fairs held in Broach district was as follows:—

TABLE No. 18

BROACH DISTRICT : FAIRS, 1948-49.

Name of the Taluka or mahal	No. of fairs
Amod	6
Ankleshwar	7
Broach	6
Dediapada	Nil
Hansot	1
Jambusar	7
Jhagadia	1
Nandod	6
Sagbara	2
Vagra	2
Valia	4
Total ...	42

Forty-two fairs have been reported from the district of which seven each are held in Ankleshwar and Jambusar talukas and

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FAIRS.

six each in Amod, Broach and Nandod talukas. No fairs are held in Dediapada taluka.

These fairs are usually attended by itinerant merchants, villagers from the neighbourhood and petty shop-keepers. Wholesale traders usually do not attend these fairs and therefore the turnover at most of the fairs is small. The usual salesmen are sweetmeat-makers, gardeners, grocers, copper-smiths, grain-purchasers, weavers, tailors, betel-leaf vendors and oilmen. There are also shops selling fancy goods imported from cities. The buyers are usually residents of the village and its neighbourhood and pilgrims from distant places. Transactions at these fairs are always on cash basis. At some places where large fairs are held, the local authorities make arrangements of land, layout and accommodation for persons attending the fair.

WEEKLY BAZARS.

The system of weekly bazars prevalent in olden days has almost disappeared from the district. The only places in the district where weekly bazars are held are Hansot and Ilav in Hansot peta and Selamba and Jodwan in Sagbara peta. In Amod peta, a bazar is held every day at Amod.

The chief articles brought for sale at these bazars are cloth, vegetables, fruits, groceries, spices, and other articles of daily use. Besides these articles, in some of the bazars shoes, ropes, brooms, baskets, blankets, and soap are also offered for sale. Some of the sellers are themselves producers of the goods they sell and others are dealers' agents from the neighbouring town or village. The buyers are the people of the market place and the villages round about. The transactions are usually done on cash basis.

PEDLARS.

As in the case of other parts of the state, itinerant pedlars hawking their goods from place to place are fast disappearing in this district also. However, this feature of economic life has not yet completely vanished.

In olden times when trade, commerce and transport had not been much developed, these itinerant pedlars — generally Memons, Marwaris and Banias — used to move from village to village on foot, on horseback or in carts and sell their goods, such as oils, hair oils, cloth, bangles, buttons, articles necessary for embroidery work, perfumes and artificial pearls, cutlery goods, fruits and vegetables etc. Thus they used to be the last and very important link in the distributary system of trading which comes directly in contact with the consumers.

Later on when more and more shops began to be established, and even the old Gazetteer published in 1877 mentions that almost every village had a shop-keeper and the business of itinerant pedlars had declined. To-day only a few pedlars eke out their livelihood by hawking articles of common use from village to village. Pedlars selling machine-made goods get their supplies in small quantities

PEDLARS.

from wholesalers in Broach, Surat or Ankleshwar and carry their ware in headloads, cycles, lorries or carts. They generally exchange their goods only for cash and payment in terms of grain is not accepted save in the backward forest regions of Sagbara mahal populated by *adivasis* (aboriginals). These pedlars do not attend weekly bazars which are held only in Sagbara and Hansot Petas. Even in the few religious fairs held in the district, the traders who attend them are local or nearby shopkeepers and not these itinerant pedlars.

The pedlars visit the various parts of the district in the fair seasons of the year. With the advent of the monsoon they retire. They are found to be operating in only a few of the talukas of the district. In Vagra and Valia talukas they are rarely seen; in Dediapada and Hansot talukas they play an insignificant role and the system is fast disappearing. Even where pedlars are found to be operating the system is in a moribund state.

The profession of peddling is practised by persons coming from quite a number of communities. Maratha pedlars from Talod and Nandurbar talukas of West Khandesh come into Sagbara sub-division and sell articles of domestic use to *adivasis;* Sindhis and Punjabis come to Ankleshwar, sell and exchange bullocks of Sindhi breed; Memons hawk cosmetics, general cutlery goods, perfumes and artificial pearls, gold and silver threads and other articles useful in *zari-kasab* work. Sometimes Chinese and South Indian pedlars are seen roaming in villages near the railway line and selling cloth, which. incidentally, is sold in most of the cases by cloth dealers of Kaira and Ahmedabad districts as well as Broach district. Moreover, Marwari pedlars are also seen selling groceries and spices. Besides these, there are oilmen selling hair oils and edible oils; coppersmiths selling brass and copper utensils; tinsmiths selling household cooking implements; *vagharis* and *Kacchias* selling fruits and vegetables; *adivasis* selling forest products such as honey and bamboo products such as baskets and mats, charcoal etc. Fishermen are seen selling fish. Recently a few displaced persons from West Pakistan have taken to hawking ice-candy in some parts of the district.

VOLUME OF TRADE.

The Municipal octroi collections in the four important towns of Broach district, viz., Broach, Ankleshwar, Jambusar and Rajpipla give an idea of the imports into these towns of goods which are subject to a levy of octroi. Octroi is only levied on imports and not on exports, and these imports are mainly for consumption within the town.

The following statement shows the quantity of imports in the town of Broach based on octroi returns for the years 1937-38, 1943-44, 1951-52, 1952-53, 1954-55 and 1955-56.

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VOLUME OF TRADE.

TABLE No. 19

VOLUME OF IMPORTS IN BROACH TOWN.

(Quantity in Bengali maunds except otherwise specified)

Commodities	1937-38	1943-44	1951-52	1952-53	1954-55	1955-56
1. Cereals and Pulses .	6,32,670	6,46,155	7,32,373	4,09,675	8,80,209	9,58,929
2. Sugar	44,008	33,397	53,449	1,26,486	1,19,614	1,18,874
3. Other articles of food	1,93,852	3,02,791	3,90,968	5,32.347	N.A.	N.A.
4. Cattlefeed and Fodder Bales (Number) ..	5,522	5,624	42,159	69,008	8,716	7,097
5. Charcoal and firewood	5,64,096	9,73,280	79,826	8,12,008	26,53,825	9,16,982
6. Building Materials .	38,904	32,233	63,131	50,756	—	—
Value in Rs. ..	2,37,100	11,01,731	17,19,315	6,12,608	17,89,534	17,56,218
Tiles (Number) .	78,420	9,05,750	15,57,675	2,52,175	20,19,332	22,81,625
7. Cement	39,508	12,489	41,296	36,427	55,731	37,104
8. Piecegoods Value in Rs.	11,87,000	29,21,757	71,32,514	43,64,984	40,02,008	41,19,587
9. Metals .. .	1,351	671	2,018	1,431	79,005	60,651
10. Tobacco .. .	3,664	2,804	5,584	4,621	5,647	4,790
11. Tea	8,347	8,321	6,854	7,003	6,327	8,941
12. Petroleum . .	7,608	6,902	36,361	34,497	91,762	1,00,284
13. Kerosene ..	23,968	17.989	37,441	48,431	*	*
14. Cotton	1,06,152	1,16,272	97,444	1,12,204	N.A.	N.A.
Bales (Number) ..	11,850	51,527	12,048	20,392	—	—
15. Miscellaneous Articles	—	—	—	—	7,86,842	14,20,415

* Included in petroleum.

IMPORTS BASED ON OCTROI RETURNS.

The above statement shows that there is an allround increase in the volume of imports into Broach town since pre-war time (1937-38). Piecegoods constituted the largest single item of imports in 1951-52. In that year piecegoods worth Rs. 71,32,514 were imported. Of course, this may be attributed to the inflationary conditions prevalent in that year. This figure declined to Rs. 43,64,984 and Rs. 41,19,587 in 1954-55 and 1955-56 respectively, the period being marked by a moderate decline in the price level. Between 1937-38 and 1955-56 imports of cereals constantly increased, though there was a fall in 1952-53. In 1937-38, 6,32.670 Bengali maunds of cereals and pulses were imported. This increased to 7,32,373 Bengali maunds in 1951-52, thereafter it declined to 4,09,675 Bengali maunds, then it again increased to 8,80,209 Bengali maunds and 9,58,929 Bengali maunds in 1954-55 and 1955-56 respectively. Increase in the import of cattlefeed and fodder was evenly spread out throughout the period between 1937-38 and 1955-56. Post war years have also seen an increase in constructional activities. Taking the year 1955-56 as a whole import figures of 'piecegoods' followed by 'Building Materials, cereals and pulses and Miscellaneous articles' dominate the whole picture.

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Jambusar.

TABLE No. 20

VOLUME OF IMPORTS IN JAMBUSAR TOWN.

(Quantity in Bengali maunds except otherwise specified)

Commodities.	1937-38	1943-44	1951-52	1952-53	1954-55	1955-56
1. Cereals and Pulses ..	49,600	31,072	1,28,928	1,44,864	56,072	93,000
2. Sugar	9,760	12,232	19,616	17,532	14,288	19,320
3. Other articles of food	12,077	24,041	22,630	24,139	N.A.	N.A.
4. Charcoal and Firewood	31,264	39,232	38,560	28,896	51,088	46,668
5. Building Materials ..	21,984	23,808	36,544	21,600	80,584	1,09,485
6. Cement	4,000	1,282	12,703	6,921	8,551	6,096
7. Piecegoods (Value in Rupees) .	2,84,880	7,56,640	8,70,880	8,89,600	13,98,436	21,17,136
8. Metals	4,986	4,506	6,842	8,080	10,803	48,383
9. Tobacco .. .	1,188	810	1,142	1,126	690	376
10. Tea	2,285	4,992	2,221	2,987	2,378	4,542
11. Petroleum and Kerosene (gallons) ..	8,845	5,077	12,761	13,696	10,483	34,97,408
12. Miscellaneous Articles	7,996	9,278	18,180	21,630	976	4,078

The above statement shows the quantity of imports into Jambusar town based on the octroi returns for the years 1937-38, 1943-44. 1951-52, 1952-53, 1954-55 and 1955-56.

It is quite clear from the above table that between 1937-38 and 1955-56 there was an overall increase in the volume of imports into Jambusar town since 1937-38. Piecegoods constituted the largest item of imports. But in the case of cereals and pulses, there was a decline for the years 1954-55 and 1955-56. Import of tea was to a certain extent constant. But import of petroleum and kerosene increased tremendously in 1955-56 as compared to that of 1954-55 and earlier period.*

Ankleshwar.

The following statement shows the quantity of imports into Ankleshwar town bassed on the octroi returns for the years 1949-50, 1951-52, 1954-55 and 1955-56 :—

*According to the figures of imports submitted by the Municipality.

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VOLUME OF TRADE

TABLE No. 21

VOLUME OF IMPORTS IN ANKLESHWAR TOWN.

(Quantity in Bengali maunds except otherwise specified)

Commodities	1949-50	1951-52	1954-55	1955-56
Cereals and Pulses	1,54,318	90,682	2,65,012	3,54,045
Sugar	30,998	18,247	57,205	50,531
Other Food Articles	47,422	63,792	—	—
Charcoal and firewood	87,407	1,05,663	55,140	95,599
Building Material (Value in Rs.) ..	4,90,585	6,64,648	2,28,172	1,96,950
Cement	17,411	19,670	12,257	11,702
Piecegoods (Value in Rs.)	14,32,069	11,74,896	14,67,138	14,51,941
Metals (Value in Rs.)	2,07,498	2,15,772	3,32,159	2,89,631
Tobacco (Value in Rs.)..	5,49,538	3,30,813	3,30,897	2,01,213
Tea	9,376	9,218	2,433	3,492
Kerosene Gallons	1,81,445	1,59,836	1,84,356	1,83,485
Miscellaneous Articles (Value in Rs.)..	15,30,824	6,62,985	—	—

Rajpipla.

The following statement shows the value of commodities imported into Rajpipla town, based on the octroi returns for the years 1951-52, 1952-53, 1954-55 and 1955-56 :—

TABLE No. 22

VOLUME OF IMPORTS IN RAJPIPLA TOWN.

Commodities.	1951-52	1952-53	1954-55	1955-56
Cereals and Pulses	—	—	—	—
Sugar	65,681	5,19,700 †	5,13,901	5,17,361
Other Articles of Food	3,95,954	2,07,372	—	—
Charcoal and Firewood .. .	19,944	66,571	23,501	2,52,500
Building Materials	7,396	48,361	3,49,036	4,07,822
Cement	1,914 *	46,269		Included in Building Materials
Piecegoods	26,528	95,086	12,81,805	13,01,918
Metals	2,83,417	2,84,438		Included in Building Materials
Tobacco	35,329	1,09,548	—	—
Tea	41,140	1,73,037	2,50,038	3,18,019
Petroleum	56,362	93,512	1,97,536	2,24,823
Kerosene	—	92,567	95,548	1,09,468
Miscellaneous, Articles	4,41,844	7,37,296	4,93,316	7,34,846

* This figure also includes the value of Sugar imported on Government account during the year 1951-52 and the octroi was realised on that Sugar during the financial year 1952-53

† This figure relates only to the months February and March of the year 1952 ; as octroi on cement was levied only since 1st February, 1952.

Since the statement shows only the value of imports for the years i.e. 1951-52, 1952-53, 1954-55 and 1955-56 no comments are possible about the changes in the volume of inward trade over a large period. Figures of imports of earlier years are not available.

RETAIL TRADE.
In Towns.

Retail trade is carried on by a large number of shops located in the various towns and villages of Broach district. Retail shops, which provide the link between the wholesaler and the consumer, are located in the various wards of these towns and cater to the needs of their localities. Their stock in trade is usually limited, but rapid replenishment is made when goods are sold out. The retailers usually have dealings with some wholesalers in the town itself, but quite a few of them have direct dealings with outside merchants, particularly in the cloth trade. Retail sales are made usually on a cash basis, but running accounts for customers are not uncommon. The details of shops located in various villages and taluka centres, excluding Broach, Ankleshwar, Rajpipla and Jambusar are given separately. The following account deals only with the municipal towns of Broach, Ankleshwar, Rajpipla and Jambusar.

Broach.

Broach town, besides being the headquarters of the district administration, has from time immemorial been famous as a large trading centre. In fact, it is the entrepot for the whole district, having a link up with Bombay, Surat, Baroda, Ahmedabad, Delhi and taluka headquarters within the district. Broach has a small natural port and a good amount of goods is handled through coastal shipping. It is a fairly big centre of cotton ginning and pressing. To cater to the needs of the large population, there are a large number of retail shops located throughout the city.

Ankleshwar.

Ankleshwar, another leading trade centre, is a large centre of cotton trading. It is located on the main railway line six miles south of Broach, and provides a link with Rajpipla by railway and with Hansot by road. Besides, being a chief cotton trading centre, it serves as a transhipment point and clearing centre, for cotton, forest products, timber etc. from the Rajpipla Division.

Jambusar.

Jambusar, which has also been another centre of trade from very early times, is a chief mart for export of cotton. Jambusar is connected with the neighbouring Baroda district by a narrow gauge line leading to Dabhoi and Chhota Udepur.

Rajpipla.

Rajpipla, till recently the capital of the old Rajpipla State, is the headquarter of the Nandod taluka. It is also a fairly important trading centre and all the timber, bamboos, forest products etc. of the Rajpipla division find their way to outside markets through this town. Of late, some industrial development has been noticed in this area too.

The Bombay Shops and Establishments Act (LXXIX) of 1948 has been brought into force in the municipal towns of Broach, Ankleshwar, Jambusar and Rajpipla. The Act was first applied in 1948 to

CHAPTER 8. — Trade. RETAIL TRADE.

the towns of Broach, Ankleshwar and Jambusar, and was extended to Rajpipla in 1950-51. This Act enforces compulsory registration of all shops and establishments. Its administration has been entrusted to the municipal boroughs. The following statement shows the number of shops registered and employment therein as on 31st March, 1952:—

Name of the Municipal town.	Number of Shops	Employment		
		Males	Females	Children
Broach	2,441	5,876	327	109
Ankleshwar	838	1,880	95	92
Rajpipla	601	1,101	15	49
Jambusar	669	1,381	184	106

In the registers of these municipalities are included a number of shops and establishments connected with certain specific professions, such as tailoring shops, hair-cutting saloons, flour mills, laundries, small repair shops, etc. These establishments, which render specific services, as distinct from selling commodities have been described in a separate chapter dealing with "Other Occupations". The following statements show (wardwise) the distribution of those shops that are engaged only in selling commodities in the towns of Broach, Ankleshwar, Rajpipla and Jambusar.

(1) Table No. 23 Distribution of shops in Broach.

(2) Table No. 24, Distribution of shops in Rajpipla.

(3) Table No. 25, Distribution of shops in Jambusar.

(4) Table No. 26, Distribution of shops in Ankleshwar.

In Broach town, there are 1,792 shops giving employment to 3,440 men. There are no women or children employed in shops there. They are dispersed in all the wards of the town but are concentrated more in wards E and D. These wards comprising the areas of Katopore, Furza, Vaijalpore, Bhathiarwad, Chippawad and Panch Hatdi, the chief trading localities, have 661 and 382 shops respectively (i.e., 58.2% of the total number of shops), and have, therefore, the greatest concentration. These wards are followed by ward B with 277 shops, ward A with 271 shops and ward C with 201 shops, which is the smallest number. Ward E alone accounts for nearly 36.8% of the total number of shops in the town. Among the categories of shops, the largest number is found under the "Grocery" group, i.e., 230 shops providing employment to 398 persons. The "Pan, bidi, tobacco, etc." is the next important group with 158 shops providing employment to 229 persons, followed by "Fruits vegetables, milk and milk products" and "Cloth and hosiery". The other groups which have a fairly sizeable number of shops are "Leather goods and footwear", "Stationery, cutlery, bangles and provision", and "Sweetmeats and eatables".

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Trade.

RETAIL TRADE

TABLE No. 23

DISTRIBUTION OF SHOPS AND EMPLOYMENT THEREIN IN BROACH (WARDWISE) 1954.

	Number of shops						Total Number of persons employed inclusive of employers		
	Ward A	Ward B	Ward C	Ward D	Ward E	Broach town	Men	Women	Children
Grocery ..	25	19	24	58	104	230	398	—	—
Fruits and Vegetables, Milk and Milk products .	6	19	10	20	79	134	135	—	—
Sweetmeats & eatables ..	18	5	5	9	11	48	88	—	—
Sugarcane Juice, Mutton beef fish and Eggs ..	6	—	—	—	32	38	38	—	—
Pan, Bidi, Cigarettes and Tobacco	52	17	12	17	60	158	229	—	—
Tobacco and Snuff ..	—	—	—	—	1	1	1	—	—
Medicines (Dispensaries) ..	3	5	9	14	3	24	81	—	—
Stationery Cutlery, Bangles and Provisions . ..	5	9	7	18	20	59	77	—	—
Leather goods and footwear	12	19	6	18	21	76	97	—	—
Cycles and Cycle accessories	7	3	—	2	4	16	19	—	—
Gramophone, Radio and Electrical goods . .	—	6	1	4	1	12	13	—	—
Watches and Opticals .	3	4	3	7	3	20	21	—	—
Umbrella, Locks & Trunks	—	1	—	3	3	7	14	—	—
Motor, Motor Cycles-Sales and repair	7	—	—	—	1	8	42	—	—
Cloth and Hosiery	7	12	5	38	61	123	217	—	—
Photography. . .	—	2	1	—	—	3	3	—	—
Furniture	—	1	—	2	1	4	4	—	—
Hardware	1	2	1	12	4	20	46	—	—
Building Materials	—	—	—	3	—	3	12	—	—
Timbers	—	—	—	4	18	22	25	—	—
Flower . .	1	4	2	7	4	18	19	—	—
Agarbatti, Hair Oils, and Perfumes	—	3	1	3	2	9	10	—	—
Glass, Mirrors and glassware	—	—	1	1	1	3	5	—	—
Zari (Gold & Silver thread)	—	3	—	—	—	3	3	—	—
Book-sellers and Publishers	1	7	1	2	2	13	49	—	—
Stationery & Newspaper	-	3	—	4	—	7	9	—	—
Petromax	—	3	1	—	2	6	6	—	—
Petrol and Kerosene ..	3	—	1	—	1	5	11	—	—
Miscellaneous	114	130	110	136	222	712	768	—	—
	271	277	201	382	661	1782	2440	—	—

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TABLE No. 24

DISTRIBUTION OF SHOPS AND EMPLOYMENT THEREIN IN RAJPIPLA (WARDWISE) 1954.

	Number of shops					Total Number of persons employed inclusive of employers.		
	Ward No. I	Ward No. II	Ward No. III	Ward No. IV	Rajpipla Town	Men	Women	Children
Grocery (Kariana, Anaj)	18	35	30	20	103	164	1	1
Fruits and Vegetables .. .	2	3	—	1	6	11	—	—
Milk and Milk Products ...	2	4	6	2	14	14	—	—
Sweetmeats & eatables	—	1	1	—	2	5	—	—
Sugarcane Juice Shops .. .	—	—	1	—	1	1	—	—
Pan, Bidi, Cigarettes and Tobacco	7	11	9	8	35	39	—	2
Tobacco and Snuff	1	—	3	7	11	20	2	—
Medicines (Dispensaries) .	—	3	—	—	3	5	—	—
Stationery, Cutlery, Bangles and Provision	6	11	7	3	27	30	2	1
Leather goods and footwear	—	—	1	—	1	2	—	—
Cycles and Cycle Accessories	—	2	9	3	14	21	—	—
Gramophone, Radio & Electrical goods	—	2	1	2	5	14	—	1
Watches and Opticals	—	1	5	1	7	8	—	—
Umbrella, Locks & Trunks .	—	—	1	—	1	2	—	—
Motor, Motor Cycles-sales and repair	—	1	1	1	3	5	—	—
Cloth and Hosiery .	6	26	14	2	48	73	—	—
Photography . .	—	1	1	1	3	5	—	—
Furniture	—	1	1	—	2	4	—	—
Utensils (Metal) .. .	1	—	1	3	5	10	—	—
Hardware	—	1	4	4	9	23	—	1
Building Material ..	—	—	—	1	1	2	—	—
Timber .	4	—	—	11	15	59	—	—
Flowers	1	1	—	—	2	3	—	—
Agarbatti, Hair Oils, and perfumes	-	1	—	—	1	1	—	—
Frame Makers	—	—	—	1	1	1	—	—
Glass, Mirrors and Glassware	—	—	—	1	1	1	—	—
Zari (Gold and Silver threads) ..	12	20	8	—	40	48	—	1
Book-sellers and publishers ..	—	—	—	1	1	2	—	—
Petrol and Kerosene .. .	—	—	—	1	1	3	—	—
Miscellaneous	60	66	98	70	294	536	9	49
	120	191	202	144	657	1112	14	56

TABLE No. 25

DISTRIBUTION OF SHOPS AND EMPLOYMENT THEREIN IN JAMBUSAR TOWN (WARDWISE) 1954.

	Number of Shops in various wards								Total number of persons employed inclusive of the employers.		
	No I	No. II	No. III	No. IV	No. V	No. VI	No. VII	Total for the town	Men	Women	Children
Grocery (Kariana, Anaj)	14	19	33	28	22	9	17	142	287	58	24
Fruits and Vegetables Milk and Milk Products ..	3	—	2	8	1	—	—	14	30	—	8
Sweetmeats and eatables .	2	3	5	2	2	2	1	17	34	4	1
Mutton, beef Fish & Eggs ..	—	—	—	—	—	6	3	9	23	—	—
Pan, Bidi, Cigarettes & Tobacco	13	5	3	4	11	—	2	39	90	—	2
Tobacco & Snuff ..	3	2	1	6	—	—	—	12	50	3	10
Medicines (Dispensaries)	2	—	—	1	—	—	—	3	9	—	1
Stationery, Cutlery, Bangles and Provision .	11	4	1	9	5	—	1	31	58	6	2
Leather goods and footwear .	9	10	—	—	17	—	—	36	78	7	7
Cycles and Cycle accessories .	—	—	—	1	1	—	—	2	2	—	—
Gramophone, Radio & electrical goods	1	—	—	—	—	—	—	1	5	—	—
Watches and Opticals .	1	1	—	—	2	—	—	4	4	—	—
Umbrella, Locks & Trunks .	—	—	—	—	1	—	—	1	2	—	—
Wood, Fuel	6	1	1	—	—	—	1	9	15	..	—
Motor, Motor cycles-sales and repair . ..	—	—	—	—	—	—	—	—	—	—	—
Cloth and Hosiery .	12	4	2	5	13	1	—	37	69	1	4
Ready made clothes	—	—	—	—	2	—	—	2	3	1	—
Photography . .	—	—	—	—	—	—	—	—	—	—	—
Furniture . .	—	—	—	—	—	—	—	—	—	—	—
Utensils (Metal) . .	—	1	—	11	—	—	—	12	18	7	1
Hardware	1	4	—	2	—	—	..	7	11	—	1
Building Material	—	—	—	—	—	—	—	—	—	—	—
Timber	—	—	5	—	—	—	—	5	25	—	—
Flowers	3	1	—	—	—	—	—	4	8	7	—
Agarbatti, Hair oils & perfumes	—	—	—	1	—	—	—	1	1	—	—
Frame makers .. .	—	—	—	1	1	—	—	2	3	—	—
Miscellaneous .. .	34	39	59	44	41	22	17	256	461	74	29
	115	94	112	123	119	40	42	646	1286	168	90

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TABLE No. 26

DISTRIBUTION OF SHOPS AND EMPLOYMENT IN ANKLESHWAR (WARDWISE) 1954.

	Number of shops					Total number of persons employed inclusive of the employers		
	Ward No. I	Ward No. II	Ward No. III	Ward No. IV	Total for the town	Men	Women	Children.
Grocery (Kariana, Anaj)	10	25	7	33	75	127	—	—
Fruits and Vegetables . ..	1	34	—	—	35	38	—	—
Milk and Milk Products	2	9	—	2	13	14	—	—
Sweetmeats & eatables	1	7	—	4	12	25	—	—
Mutton, Fish and Eggs	—	25	—	—	25	30	—	—
Pan, Bidi, Cigarettes and Tobacco.	10	15	—	8	33	33	—	—
Tobacco and Snuff .. .	2	25	—	4	31	39	—	—
Medicines (Dispensaries) .. .	—	4	—	1	5	6	—	—
Stationery, Cutlery, Bangles and Provisions	2	12	2	1	17	19	2	—
Leather goods & Footwear .. .	—	15	—	2	17	23	—	—
Cycles and Cycle accessories	—	5	—	—	5	5	—	—
Gramophone, Radio and electrical goods	—	2	—	—	2	2	—	—
Watches and Opticals . .	—	1	—	1	2	2	—	—
Umbrella, Locks and Trunks	—	1	—	2	3	3	—	—
Wood, fuel . .	2	14	—	2	18	24	—	—
Motor, Motor cycles-sales and repair	—	2	—	—	2	2	—	—
Cloth and Hosiery . . .	—	25	1	2	28	79	—	—
Ready made clothes ..	—	3	—	—	3	3	—	—
Photography .	—	1	—	—	1	1	—	—
Furniture . .	—	1	—	—	1	1	—	—
Utensils (Metal) — ..	—	4	—	—	4	4	—	—
Hardware . ..	—	4	—	1	5	8	—	—
Building Material . .	—	5	—	1	6	6	—	—
Timber	—	10	—	—	10	20	—	—
Flowers .. .	—	6	—	1	7	7	2	—
Agarbati, hair oils, perfumes .	1	12	3	30	46	81	—	—
Frame makers	—	2	—	—	2	2	—	—
Glass, mirrors, and glass-wares ..	—	3	—	—	3	3	—	—
..	31	272	13	95	411	607	4	—

Rajpipla town has 657 shops giving employment to 1,112 men, 14 women, and 60 children. The largest number of shops are to be found in ward III and the smallest in the ward I. Ward III accounts for 30.7% of the total number and has 202 shops . This is closely followed by ward II which has 191 shops, that is 29.07% of the total number. Wards IV and I follow with 144 and 120 shops. The category of shops under "grocery" account for the largest number of shops and provides the largest employment also. This category has 103 shops, i.e., 15.6% of the total number, and provides employment to 164 men, 1 woman and 1 child. This group is followed by "Cloth and hosiery" with 48 shops, "zari" with 40 shops, "pan, bidi" with 35 shops and "stationery, cutlery, bangles etc." with 27 shops.

In Jambusar town, there are 646 shops, providing employment to 1,286 men, 168 women, and 92 children. Although the retail shops show a fair degree of dispersion throughout the town, concentration is noticeable in wards IV, V and I. Ward IV, which accounts for the highest number of shops, has 123 shops, i.e., 19.04% of the total number, and is closely followed by ward V with 119 shops i.e., 18.43% of the total and ward I with 115 shops, i.e., 17.8% of the total number. The smallest number is to be found in ward VI which has 41 shops only. From the point of view of number of shops, the group under "grocery" comes first with 42 shops, which gives employment to 287 men, 58 women, and 24 children. The group under "pan, bidi, tobacco, etc." comes next with 39 shops, providing employment to 90 men, and 2 children. The other more numerous groups that follow are "cloth and hosiery" with 37 shops, "Leather goods and footwear" with 36 shops and "stationery, cutlery, bangles etc." with 31 shops.

In Ankleshwar, there are 411 shops which provide employment to 607 men and 4 women. In this town, ward II alone accounts for 66.8% of the total number of shops containing 272 shops out of the total of 411. Ward IV comes next with 95 shops, i.e., 23.1% of the total. The smallest number of shops is to be found in ward III which has only 13 shops. In Ankleshwar too, the "grocery" group has the largest number of shops, i.e., 75 shops (18.24% of the total), giving employment to 127 men. This group is followed by "Agarbatti and perfumes" with 46 shops. "fruits and vegetables" with 35 shops, "pan, bidi, tobacco, etc." with 33 shops, "tobacco and snuff" with 31 shops, "cloth and hosiery" with 28 shops ; and "mutton, beef etc." with 25 shops.

In all these principal towns of the district, the dispersion of shops in retail trade is as would be expected. Grocery, pan and bidi, cloth and hosiery, fruits and vegetables, milk and milk products, stationery and cutlery and wood fuel are located in almost all the wards and localities. Broach town has been quite famous for sweetmeats and this fact explains the dispersion of 48 shops in all the wards of the

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town. Groups of shops which do not serve common or daily needs, namely, those selling metal utensils, glassware, hardware, timber, leathergoods and footwear, drugs perfumes, books and building materials have a higher degree of concentration and have each their own particular localities. The concentration of shops selling mutton, fish, beef and eggs in a few places is mainly due to regulations imposed by municipal authorities.

Grocery.

Among the retail shops, the grocery group is the most important. It has the largest number of shops of all the groups and also provides the widest employment. All sorts of cereals and pulses, spices, jaggery, oil,*ghee,* condiments, tea, coffee, Ayurvedic drugs, dry fruits, menthol, agarbatti, saffron, baking soda, catechu and other items of grocery are sold in these shops. The stock in trade of individual shops varies in value by a wide range, from Rs. 1,000 to Rs. 5,000. The retail shop-keepers get their stock in trade from the local wholesale dealers, who, in turn, obtain the same from various manufacturing centres particularly from cities like Bombay, Calcutta and Madras.

Usually shopkeepers purchase commodities on credit from the wholesalers and settle bills within two weeks; and thereafter they have to pay some interest on the amount. It is a general practice to employ servants for handling and weighing commodities. The larger shopkeepers sometimes employ also clerks and accountants for maintaining account books. In this trade the brisk season is from November to April during which period agriculturists bring their produce for sale to these towns which depend for their trade mainly on the demand from the neighbouring villages.

Pan, Bidi, Tobacco and Cigarettes.

Next in importance to shops selling grocery are those selling *pan*, *bidi*, cigarettes, and tobacco.* Most of these shops are small establishments managed by one or two persons. Pan usually of two types, *deshi* and kapoori, *bidi*, cigarettes, cheap cigars, chewing tobacco, betelnuts, catechu, menthol crystals, spices, wax candles, toilet articles, and occasionally aerated waters are the articles sold in these shops.

Owners of *pan* shops obtain their stock in trade from the local wholesalers who obtain their stock from places like Mahim in Bihar. A large number of shopkeepers make quantities of *bidis* sufficient for their own sales. Cigarettes are obtained from the local sole agents of different tobacco companies of India. Stocks of tobacco are obtained from the villages of the district itself or from the neighbouring district of Kaira. Banarasi tobacco is obtained from the nearby cities. Other stock in trade is obtained locally from the wholesalers. The value of the stock in trade of each shop varies between Rs. 500 and Rs. 1,000. Retail shopkeepers in this trade get goods on credit from

*In Rajpipla, "Cloth and hosiery" and "Zari" form more important groups than "Pan, bidi" and in Ankleshwar shops selling "Agarbatti and perfume" and "Fruits and vegetables" are more important than those selling "Pan, bidi".

the wholesalers and the bills are settled within fifteen days. Though the trade is carried on throughout the year, it is more brisk during the monsoon.

Cloth and Hosiery.

Cloth and hosiery shops come next. They stock and sell all kinds of textiles, cotton, woollen, and silk, such as shirtings, coatings, saries, dhoties, *malmal,* chit, voiles, all kinds of hosiery such as stocks, baniyans, nylons, pullovers, handkerchiefs, *sataranjis,* borders, laces, umbrellas, raincoats and hats etc. A majority of the shopkeepers purchase most of their requirements through the local wholesalers who in their turn get them from the mills. Most of these shops are owned by members of the traditional mercantile communities. The value of the stock in trade of each shop varies between Rs. 1,000 and Rs. 5,000. Big shops employ salesmen and clerks. Retailers in this trade get 15 days' credit for settlement of their bills. Business is done throughout the day. As in the case of other shops, the rainy season is generally slack and sales shoot up during the seasons of marriages and festivals. The brisk period for this trade is the period between November and April.

Wood, Fuel and Charcoal.

Wood fuel and charcoal shops deal in firewood, charcoal, dried dung cakes, and in some cases coal and coke. The varieties of wood fuel sold in these shops are *bawal, mahuda, sag,* guava, mango, tamarind and *khakhar.* Charcoal sold in these shops belongs to *panchrase, dhavado, kher* and *bawal* types. Shopkeepers obtain the stock of wood fuel from forest contractors who send the stocks directly to retailers in these towns. A large quantity of firewood is brought to these towns from the forests of the Rajpipla Division and also from the neighbouring districts. Charcoal is brought from the forest areas of the neighbouring districts, particularly from Surat district. Retailers get fifteen days' credit for the settlement of bills from their wholesalers. The value of the stock in trade of an individual shop varies between Rs. 2,000 and Rs. 10,000. As firewood and charcoal are commodities which get wet during the monsoon, people usually do not make any purchases of these commodities during the rainy season. The rainy season is most dull for this trade and brisk sales are reported during the period between November and April.

Stationery, Cutlery and Bangles etc.

Though for the purposes of tabulation of data in the statements on preceeding pages, stationery, cutlery, bangles etc. have been grouped in one, there are shops which deal exclusively in individual items of this group.

Stationery shops deal in educational text books, religious books, sports goods and all items of stationery, e.g. ink, paper, exercise books, pen-holders, instrument boxes, erasers, envelopes, blotting papers, pins and clips, fountain pens, etc. The stocks of these items are mainly obtained from Bombay and Ahmedabad; and the transactions are essentially on cash basis. The brisk season for this trade is from November to June. The stock in trade of an individual shop varies in value between Rs. 1,000 and Rs. 10,000. There are, however, some big stationers who keep stock worth even Rs. 15,000.

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Trade.

Stationery, Cutlery and Bangles etc.

Some shops sell all kinds of toilet articles and perfumeries, soaps, hair oils, slates, pencils, razor blades, all types of water and oil colours, coloured silk and cotton threads, needles, biscuits, confectionery, small mechanical implements like punching machines, nail-cutters, boot-polishes, playing cards and small indoor games, presentation articles, glassware and crockery, locks, small bags and pain balms etc. These commodities are obtained mainly from Bombay and Ahmedabad on payment of cash. Sales in this trade are steady throughout the year. The stock in trade of an individual shop varies in value from Rs. 1,000 to Rs. 10,000 and in some cases even upto Rs. 15,000.

There are some shops which sell bangles made out of glass, plastic, *kharad* and ivory, imitation bangles, *kumkum*, hair pins, *pumta*, looking glasses, gift and presentation articles, and other toilets and cosmetics. Stocks of these things are obtained mostly from Bombay and Ahmedabad on cash payment. The sales in these shops are almost steady throughout the year. The stock in trade of each shop varies in value from Rs. 500 to Rs. 5,000.

Footwear and Leather Goods.

Footwear and leather goods such as shoes, chappals, sandals, canvas-shoes, suit cases, hand-bags, straps etc., are sold by shops grouped under "Leather goods and Footwear". There are some shops which also sell some other articles like hats, socks, umbrellas, rain-coats, and also articles of small indoor games. Leather goods and footwear are usually obtained from outside, particularly from places like Bombay and Ahmedabad. Some of these shops also make footwear to order, engaging workers on piece wages. The sales in these shops are fairly steady throughout the year. A small shop in this particular trade has usually a stock in trade worth Rs. 1,000; whereas the value of stocks in bigger shops varies from Rs. 10,000 to Rs. 25,000. Retailers do not generally enjoy credit facilities and they have to carry on their transactions on cash basis.

Fruits and Vegetables.

There are a good number of shops in all these four towns dealing in fresh fruits and vegetables. Commodities that are sold in these shops include all fresh vegetables and fruits such as *papaya*, pomegranates, mango, *mosambi*, *chikoo*, oranges. grapes, water melons etc. Some of these shops keep dry fruits also. The stocks of green vegetables are obtained from the rural areas of the district and fruits are brought from outside centres of production and places like Surat, Bombay, Bulsar, Poona, Kaira etc. Most of the shops dealing in fruits and vegetables are small units, each managed by one or two persons and they cater to the needs of their immediate neighbourhood. The stock in trade of a unit varies in value between Rs. 100 and Rs. 500.* But there are some very big shopkeepers having stocks worth from Rs. 1,500 to Rs. 2,500. These fruits and vegetables shops have a fairly steady business throughout the year.

*They cannot keep larger stocks because of the perishable nature of the commodities.

Metal Utensils.

Metal utensils consist mainly of brass and copperware but those made of aluminium, German silver and stainless steel are also coming into general use. The manufacture of brass and copper utensils is a small-scale indutsry in the district, especially in Broach town; and considerable quantities of the products of this industry are sold through these metal utensil shops. Local traders in this trade stock kitchenware, such as dishes, pans, *tapelas, tapelis,* cups, saucers, spoons, frying pans, etc. Products of the local industrial establishments are obtained directly from them. Imported wares are obtained through wholesalers who, in their turn, get the same from Ahmedabad and Bombay. The stock in trade of individual shops varies in value between Rs. 3,000 and Rs. 15,000. The brisk season for this trade is the period between November and June; sales amount up during the winter season and seasons of marriages and festivals.

Hardware and Building materials.

Hardware and building materials are grouped together. The shops in this group deal in iron sheets, galvanized iron sheets, iron bars, angles, beams, channels, joints, wires, screws, nails, bamboos, lime, timber, and other materials required for building construction piping, sanitary fittings of all kinds, handles, railings tools, iron implements, iron kitchenware, locks, paints, varnishes, linseed oil, cement, cement pipes, and other cement materials, and miscellaneous items of hardware. The bigger shopkeepers make their purchase of hardware direct from manufacturers and the smaller ones purchase chiefly from the Bombay market and occasionally from local bigger shops. The stock in trade of a smaller shop is of the value of Rs. 25,000; but bigger ones have stocks worth from Rs. 1,50,000 to Rs. 2,00,000. The demand for hardware and building materials is usually brisk during the fair season which is favourable for building construction and dull during the monsoon.

Medicines.

Shopkeepers under the group "medicines" style themselves as chemists and druggists. They sell chemicals of various kinds, foreign and indigenous drugs and medicines, and surgical instruments and other accessories required by the medical profession. A large part of the chemicals, drugs and medicines stocked is of foreign origin and is brought from Bombay. Those manufactured in India are brought mainly from their places of production namely, Bombay, Baroda, Calcutta, Ahmednagar etc. The value of the stock in trade of a small shop in this business is usually Rs. 25,000; whereas that of bigger shops varies between Rs. 2 lakhs and 5 lakhs. The sales are reported to be steady throughout the year.

Cycle Shops.

In the absence of any organised bus service, bicycle forms the most important vehicle for the middle class and the poor. There are some shops in all these towns which sell cycles and cycle accessories. Besides these things, some of the shops also sell stoves, bat teries, cells, electrical goods, wires, lamps, automobile accessories, gramophone records and other mechanical implements. A number of

CHAPTER 8.

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Cycle Shops.

such shops sell cycle accessories only and do repair work. They hire out cycles at fixed rates per hour or per day. The cycles kept for hire in this manner are, after a time, sold away fetching fairly reasonable prices to the shopkeepers. New cycles are obtained from Bombay and Ahmedabad and accessories are obtained locally from wholesalers. Other items of merchandise are obtained from Bombay and Ahmedabad. The small cycle shop usually stocks goods worth Rs. 2,000, while a big one keeps stocks worth a few thousand more. For this trade, all seasons are alike, as sales are fairly steady during the year.

Flowers.

In all the four towns, there are a few shops selling flowers of different colours and odours, garlands, nosegays, bouquets, and decorative bunches of flowers. Most of these florists have their own gardens in which they grow the flowers they sell in their shops. Sometimes if the demand is heavy they purchase stocks from other garden-owners. The stock of a florist does not exceed Rs. 1,000. Sales are steady throughout the year.

In addition to the important categories of retail shops described above, there are a large number of other shops which deal in various other articles of daily requirements and also of occasional necessity. The statements regarding retail shops give a clear idea of the location of these shops and the extent of employment which they provide.

DEALERS IN BROACH, ANKLESHWAR, JAMBUSAR AND RAJPIPLA REGISTERED UNDER SALES TAX ACT.

The following statement compiled from the quarterly returns under the Bombay Sales Tax Act of 1946, shows for the Broach, Ankleshwar, Jambusar and Rajpipla towns the number of registered dealers according to trades and their gross turnover for the year 1955-56. Since the turnover of most of the retail shops does not reach the minimum prescribed for registration under the Act (Rs. 10,000 in the case of importers and manufacturers and Rs. 30,000 in the case of others), a considerable number of retail shops fall outside the scope of this statement :—

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DEALERS IN BUSAR AND RAJ-LESHWAR, JAM-BUSAR AND RAJ PIPLA REGISTER-ED UNDER SALES TAX ACT.

STATEMENT No. 27

STATEMENT SHOWING THE MEMBER OF REGISTERED DEALERS FOR THE TOWNS OF BROACH, ANKLESHWAR, JAMBUSAR AND RAJPIPLA, AND THEIR TOTAL TURNOVER FOR THE YEAR 1955-56.

(figures of gross turnover in thousands of Rs.)

	Foodstuffs and Hotels		Clothing and Consumers goods		Building materials		Transport and vehicle goods		Machinery and Capital goods		Fuel and Power		Industrial commodities		Miscellaneous		Total of all commodities	
1	No. 2	G. T. O. 3	No. 4	G. T. O. 5	No. 6	G. T. O. 7	No. 8	G. T. O. 9	No. 10	G. T. O. 11	No. 12	G. T. O. 13	No. 14	G. T. O. 15	No. 16	G. T. O. 17	No. 18	G. T. O. 19
1. Broach City	154	39,295	56	39,695	34	3,200	2	53	1	83	13	4,169	34	57,720	91	10,159	385	1,54,374
2. Ankleshwar Town ..	51	20,096	11	1,527	2	1,066	—	—	—	—	—	—	5	10,884	3	466	72	34,039
3. Jambusar Town	35	4,977	13	629	8	722	—	—	—	—	2	263	12	4,403	19	1,232	89	12,226
4. Rajpipla Town	48	5,577	17	1,077	25	3,120	1	20		—	2	736	7	4,122	36	1,777	136	16,429
TOTAL ..	288	69,945	97	42,928	69	8,108	3	73	1	83	17	5,168	58	77,129	149	13,634	682	2,17,068

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DEALERS IN BROACH, ANKLESHWAR, JAMBUSAR AND RAJPIPLA REGISTERED UNDER SALES TAX ACT.

The Statement shows that during the year 1955-56 there were 682 registered dealers under the Sales Tax Act in the four towns of Broach, Ankleshwar, Jambusar and Rajpipla; and their total gross turnover during the period amounted to Rs. 217,06,8,000. Broach town alone accounts for 385 registered dealers with a turnover of Rs. 154,37,4,000. Rajpipla comes next with 136 dealers with a turnover of Rs. 1,64,29,000. Jambusar claims 89 dealers with a turnover of Rs. 1, 22,26,000, and Ankleshwar claims 72 registered dealers with a turnover of Rs. 3,40,39,000. The most numerous class of shopkeepers are those who deal in "foodstuffs" and their number is 288. Shopkeepers dealing in "Machinery and Capital goods" are only to be found in Broach town. Other shops such as those dealing in "building materials", "fuel and power", "industrial commodities" etc., are to be found in all the four towns.

HAWKERS.

Hawkers in the urban areas, like pedlars in the rural areas, play an important part in retail trade. However, organized trading activities of modern times do not leave much scope to hawkers especially in big cities and towns where there are more shops. They sell cheap articles, such as bread, pepermints, sugarcane juice, cheap utensiles, soap, oil, *agarbattis*, bidis, toys, sweets, dry fruits etc.

Broach being the district headquarters has naturally a large number of hawkers. It was reported to be 243 in 1956. In order to regulate activities of hawkers, the municipality has introduced the system of licensing, and has issued licences to such hawkers who move from place to place with goods in hand-carts. These hawkers are the main suppliers of green vegetables as there is only one Municipal Market for the whole city. In 1955-56, wheel-tax was collected from owners of licenced hand-carts dealing in cloth and cutlery at the rate of Rs. 3/- per annum and at the rate of Rs. 2/- per annum from those who sold eatables. Their business was concentrated in ward A viz., Dadia Bazar and Dholikui.

The number of hawkers in the Jambusar municipal area was approximately 91 in 1955-56. They used hand-carts to carry their goods. In Ankleshwar and Rajpipla municipal areas also there are reported to be some hawkers who carry on their trade on a small scale.

TRADE ASSOCIATIONS.

Trade being one of the major economic activities of modern times, associations and organisations of different types of traders naturally play an important role in the community's life. There are many trade associations in Broach connected with different types of traders in the main centres of the district. The more prominent among them are given below :

(1) The Cloth Merchants' Association, Broach,
(2) The Grain Merchants' Association, Broach,
(3) The Cloth Dealers' Association, Palej,

(4) The Cottonseeds Dealers' Association, Palej,
(5) The Ankleshwar Cloth Merchants' Association, Ankleshwar,
(6) The Jambusar Tobacco Merchants' Association Jambusar,
(7) The Jambusar Grain Merchants' Association, Jambusar,
(8) Rajpipla Area Timber Merchants' Association, Rajpipla.

WHOLESALE RETAIL PRICES.

The following statements compiled from the Government Gazette of March 1956, showing current prices on 15th September, 1955, give an idea of the relation between wholesale and retail prices.

TABLE No. 28

WHOLESALE PRICES IN BROACH ON LAST DAY OF THE FORTNIGHT 30TH SEPTEMBER, 1955.

Commodities.	Variety/Quality.	Units.	Rs.	A.	P.
Cereals—					
Paddy	Fine	—	15	0	0
	Medium	—	12	0	0
	Coarse	—	8	6	0
Rice	Fine	—	25	0	0
	Medium	—	16	8	0
	Coarse	—	15	0	0
Wheat	White	—	17	0	0
Jowar	White	—	8	8	0
Bajra	—	—	10	12	0
Pulses (Whole Pulses)—					
Gram	—	—	12	12	0
Arhar (tuver)	—	—	11	12	0
Mung Dal	—	—	7	12	0
Urid Dal	—	—	10	0	0
Masur Dal	—	—	10	8	0
Sugar and Gur—					
Gur	Sort 1	—	18	4	0
Sugar refined	D-24	—	37	4	0
Oilseeds, Oils and Oilcake—					
Ground nut	Unshelled	—	13	8	0
Groundnut Oil	—	—	46	0	0
Sesamum Oil	—	—	46	0	0
Caster seed	—	—	19	0	0
Castor oil	—	—	51	0	0
Coconut	Nuts (per thousand)	—	222	0	0
	Copra	—	39	0	0
Coconut oil	—	—	73	0	0
Vegetable Oil	Vanaspati	—	66	0	0
Fruits, Vegetables and Nuts—					
Fruits—					
Plantains		Per gross	12	0	0

CHAPTER 8.

Trade.
WHOLESALE
RETAIL PRICES.

Commodities	Variety/Quantity	Unit	Rs. As. Ps.
Mangoes		Per gross	4 8 0
Vegetables—			
Potatoes	—	—	13 0 0
Onions	—	—	4 8 0
Tobacco—			
Country	Leaf	—	170 4 0
Livestock—			
Work Cattle—			
Work bullocks	Class I	Per head	650 0 0
	Class II	Per head	450 0 0
Buffalo bulls	Class I	Per head	350 0 0
	Class II	Per head	225 0 0
Cows	Class I	Per head	225 0 0
	Class II	Per head	110 0 0
Buffaloes	Class I	Per head	525 0 0
	Class II	Per head	320 0 0
Sheep	—	Per score	420 0 0
Livestock products—			
Ghee	Agmark	—	200 0 0
Condiments and Spices			
Turmeric	—	—	72 0 0
Tamarind	—	—	20 0 0
Dry Chillies	—	—	42 0 0

TABLE No. 29

RETAIL PRICES CURRENT IN BROACH ON THE 1ST DAY OF THE FORTNIGHT ENDED 30TH SEPTEMBER, 1955.

Commodities	Variety/Quality	Unit	S. Ch.
Cereals—			
Rice	Coarse	—	2 5
Wheat	White	—	2 8
Jowar	White	—	5 0
Bajra	—	—	3 10
Pulses—			
Gram	Whole	—	4 0
	Flowr	—	2 12
Arhar (Tuver)	Whole	—	5 0
	Split (both with and without skin)	—	3 0
Mug	Whole	—	2 12
	Split (both with and without skin)	—	1 12
Urd	Whole	—	1 14
	Split (both with and without Skin)	—	2 2

* Prices in seers and Chattaks (of 80 and 5 tolas respectively) per rupee unless otherwise stated. When quality is not specified *fair average* quality is implied

TABLE No. 29—*(contd.)*

Commodities	Variety/Quality	Unit	
			S. Ch.
Masur	Whole	—	2 14
	Split (both with and without skin) ..	—	2 8
Sugar and Gur—			
Gur	Sort I	—	3 0
Sugar refined	D-24	—	1 0
Oils—			
Groundnut Oil	—	—	1 0
Sessamum oil	—	—	0 14
Castor Oil	—	—	0 12
Coconut Oil	—	—	0 8
Vanaspati	—	—	0 8
Fruits, Vegetables and Nuts—			
Fruits— ..			
Plantains	—	—	0 8
Oranges	—	—	1 2
Vegetables—			
Potatoes	—	—	3 0
Onions	—	—	10 0
			Rs. a. p.
Tobacco— . ..	Leaf	Per pound	2 0 0
Livestock Products—			S. Ch.
Milk	—	Per rupee	2 0
Ghee	Agmark	Do.	0 4
	Ungraded .. .	Do.	0 6
			Rs. A. P.
Eggs	A Grade.. .. .	Per dozen	1 12 0
Condiments and Spices—			S. Ch.
Turmeric	— ..	—	0 12
Tamarind	—	—	0 9
Dry Chillies	—	—	0 12
Miscellaneous—			
Salt	—	—	20 0
			Rs. a. p.
Kerosene oil	—	Per gallon	1 4 0
Firewood	— ..	per maund	2 4 0
Cotton	Cleaned	per maund	60 0 0
Tea	—	Per pound	3 0 0
Coffee	—	per pound	3 4 0

CHAPTER 9—TRANSPORT AND COMMUNICATIONS.

Transport and Communications.
INTRODUCTION.

IN THE EARLY DAYS OF BRITISH OCCUPATION, the state of transport and communications in Broach district as in other districts, was far from satisfactory and even as late as 1863 the district was without metalled roads. Traffic was generally carried on by means of pack bullocks along rough tracks, most of which were not passable during the wet season. Thus, cart traffic was confined to the fair weather months. During the rainy season those forced to travel were carried in palanquins by men of the Bhoi caste or rode from village to village upon oxen. Another means of communication in the district was by water. The district has a fairly long stretch of coast line and the sea has made many inlets in the district. The river Narmada was navigable without much hindrance till 1820 and even big foreign ships used to berth at Broach port and some small ships used to go up to Tilakwada. River traffic was maintained on a sufficiently large scale till the construction of railway lines in the district (1861) but sea traffic declined rapidly even earlier. People living on the banks of the river, Narmada, Dhadhar and Mahi, and in nearby villages used to go long distances by ferries. In 1875 there were 11 perennial ferry services, nine over Narmada, one over Dhadhar and the remaining over Mahi. Of the 11 services, 6 services over the Narmada used to carry passengers free of charge and were maintained by the local funds for the convenience of passengers.

The Bombay, Baroda and Central India railway line, now called the Western Railway and running through the Broach district was thrown open to traffic one year after the construction of the railway bridge over the Narmada in 1860. The local fund cess, which began to be levied from 1863 placed increasing funds in the hands of the district authorities for constructing new roads and maintaining them in a satisfactory condition. In spite of special difficulties of road making in the district, with its want of metal and the numerous inlets of the sea that intersect so much of its surface, considerable progress was made within a short span of time and by 1875 there were 13 lines of road, some of which were partly metalled and bridged, extending over a total distance of 143.5 miles. These 13 lines could conveniently be divided into two groups- one to the north and the other to the south of the Narmada. The northern group consisted of six roads and covered a distance of 89 miles. The southern group consisted of seven lines covering 54.5 miles.

Indicative of the change that has come over since 1877, when the old Surat and Broach Gazetteer was published, not only in road

transport but over the entire field of transport and communications, is the following statement showing the number of persons engaged in various brnches of transport and communications in 1881 and 1951.

	1881	1951
Transport by road	248	847
Transport by railways	485	905
Transport by water	971	841
Postal services	—	184
Telephone	—	22
Total	1,704	2,399

Considering that beween 1881 and 1951, the area of the district increased from 1,453 sq. miles to 2,9l14 sq. miles and the population from 3,26,930 to 7,06,035, the increase during the same period in the number of persons engaged in transport, from 1,704 to 2,399, is very small indeed. The increase in rail transport, as evidenced by the numbers engaged in it, seems to have affected transport by water more than transport by road.

Roads in Broach district, as in other districts, are now classified according to their importance, into five categories namely, (1) National Highways, (2) State Highways, (3) Major District Roads, (4) Other District Roads and (5) Village Roads.

"National Highways" (N. H.) have been defined as "main highways serving predominantly *national,* as distinct from State, purposes, running through the length and breadth of India, which together form a system connecting (by routes as direct as practicable) major ports, foreign highways, capitals of States, and including those required for strategic movements for the defence of India." The National Highways are maintained by the State P. W. D. from Central Government Funds. These roads are generally fully metalled and bridged and now they are being black topped.

"State Highways" (S. H.) have been defined as " all other main, trunk or arterial roads of a State connecting up with National Highways or State Highways of adjacent States, District Headquarters and important cities within the State and serving as main arteries of traffic to and from District Roads." These are usually maintained by State Governments and are generally metalled and bridged and are completely motorable throughout the year, except that sometimes where they have causeways or submersible bridges traffic may be interrupted in monsoon for very short periods. The State Highways usually have connections with National Highways.

"Major District Roads" (M. D. R.) are roughly of the same specifications as State Highways. These roads connect important marketing centres with railways, State Highways and National Highways.

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Transport and Communications.
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"Other District Roads" (O. D. R.) are also of the same type as Major District Roads except that they are subject to more frequent interruptions of traffic during the rainy season. They also serve market places. These are generally unmetalled.

The State Highways and, in most cases, the Major District Roads, are constructed by the State Public Works Department, but the cost is met out of State Funds.

"Village Roads" (V. R.) are generally approach roads from main roads to villages. They have generally unmetalled surface.

Brief running account of a few important roads is given below Some of the roads are still under construction, though attempts are being made to complete construction work as early as possible.

NATIONAL HIGHWAY.

Bombay-Ahmedabad Road (National Highway No. 8) is the only National Highway which passes through Broach District. The course of this Highway is as follows: Leaving Bombay and passing through Thana and Surat districts, it enters the southern border of Broach District (at mile No. 226/1/580)* near Kharod village and runs upto Varedia, a village on the northern boundary of the district *via* Ankleshwar and Broach. The road leaves the district boundary after Varedia and runs on to Baroda. It passes through the talukas of Ankleshwar and Broach and covers in all 25/1/450 miles in the district. The road crosses three bridge in the district — first across the Amla river, at mile No. 232/1; the second across Narmada river at mile No. 237/3; and the third across Bhukhi khadi at mile No. 249/5. A major portion of the road (from Kharod to Ankleshwar and Broach to Varedia) in the district is nearing completion and will have a metalled surface. The road has a black top surface in between Ankleshwar and Broach.

It touches the following places in the district:—

Kharod	...	(mile 227/4)
Ankleshwar	...	(" 233/4; I. B.† and T. B.†)
Broach	...	(" 238/3; R. H.† and T. B.)
Nabipur	...	(" 246/1; D. B.).
Waredia	...	(„ 250/4)

Running from south to north, the following roads take off from

*The first figure denotes the number of mile, the second the number of furlongs and the third the number of feet in the next furlong.

† I. B. = Inspection Bungalow.
T. B. = Traveller's Bungalow.
D. B. = District Bungalow.
R. H. = Rest House.

or are crossed by it:—

Place or point of junction.	Mile No.	Name of the Road	Classification.
Ankleshwar	233/4	Sahol-Hansot-Ankleshwar-Broach-Jambusar-Masar Road.	S.H.
"	233/4	Ankleshwar-Kosamdi-Kondh-Valia-Netrang-Dediapada-Sagbara Road	-do-
"	233/4	Ankleshwar-Dadhal-Rajpipla Road.	M.D.R.
Broach	238/3	Sahol-Hansot-Ankleshwar-Broach-Jambusar-Masar Road.	S.H.
"	238/3	Broach-Shuklatirth-Shahabad-Angareshwar-Palej Road.	M.D.R.
Nabipur	246/0	Dayadra-Nabipur Road	O.D.R.

STATE HIGHWAYS

Sahol-Hansot-Ankleshwar-Broach-Jambusar-Masar Road (State Highway). Till recently, before construction of National Highway No. 8 was taken up, this road was temporarily used as National Highway No. 8. Even now, when construction of the National Highway is over, this road will continue to be used as temporary National Highway No. 8. Leaving Bombay and passing through Thana and Surat districts the road enters the south west border of Broach district at mile No. 234 and runs in the north-west direction up to Hansot town and from there the road runs in the north-east direction up to Ankleshwar town and from there onwards, runs in the northern direction till it crosses the bridge over the Narmada near Broach and reaches the town of Broach. Passing through the municipal limits of Broach town, the road winds its way *via* Samni and Amod in the north-west direction till it reaches Jambusar and then it runs in the north and north-east direction and reaches Uchhad village, the last village on the road in the district. Running further a little distance, the road leaves the district boundary and reaches Masar, a village in Baroda District at mile No. 299/6 and then runs on to Baroda. It covers in all 63 miles in the district, passing through Hansot, Ankleshwar, Broach, Amod and Jambusar. The road crosses in all eight bridges in the district — first over the river Kim at mile No. 234/0; the second over Vand Khadi at mile No. 240/2; the third over the Narmada at mile 263 near Broach; the fourth over Karedi Khadi at mile 272/4; the fifth over Bhuki Khadi at mile No. 275/7; the sixth over Tancha Khadi at mile No. 282/5; the seventh over the Nahiar at mile No. 286/1 and the eighth over Dhadhar river at mile No. 289/6. The Bridge over the Narmada near Broach is the biggest that the road crosses in the district. A major portion of the road in the district is metalled, though patches of black top surface can also be seen frequently. The road between Ankleshwar and Broach is having a black top surface. About 11 miles of the road from Hansot to Ankleshwar have been provided with concrete slabs.

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Transport and Communications.
STATE HIGHWAYS.

It touches the following places in the district:—

Sahol	...	(Mile 234)
Sunevkala	...	(„ 238)
Raima	...	(„ 241)
Alwa	...	(„ 242)
Hansot	...	(„ 245; D. B.)
Utraj	...	(„ 246)
Sajod	...	(„ 251/4)
Ankleshwar	...	(„ 256/3; I. B. and T. B.)
Andada	...	(„ 259/5)
Chhapra	...	(„ 262)
Broach	...	(„ 264; I.B. and T.B.)
Kantharia	...	(„ 267/4)
Tam	...	(„ 269)
Derol	...	(„ 270)
Dayadra	...	(„ 274)
Kelod	...	(„ 277)
Samni	...	(„ 278/5; I. B. and T. B.)
Nahier	...	(„ 286)
Amod	...	(„ 288; T. B.)
Jambusar	...	(„ 293/5; D. B. and I. B.)
Uchhad	...	(„ 299)

Running from South to North, the following roads take off from or are crossed by it:—

Place or point of junction	Mile No.	Name of the Road.	Classification
Hansot	245/0	Hansot-Kantiajal Road	M.D.R.
Ankleshwar	258/4	Kharod-Ankleshwar-Broach Waredia section of N.H. No. 8.	N.H.
Broach	264/0	-do-	„
Amod	288/0	Amod-Sarbhan-Palej Road.	M.D.R.
Jambusar	294/4	Jambusar-Tankaria-Devla Road.	M.D.R.
Jambusar	294/4	Jambusar-Sarod-Kavi Road.	M.D.R.

Ankleshwar-Kosamdi-Kondh-Valia-Netrang-Dediapada-Sagbara Road is another State Highway in the district. The road starts from Ankleshwar (mile 0/0) and takes the south-east direction upto Valia, from where it takes the north-east direction to reach Netrang. Between Netrang and Dediapada, it becomes a curve, having a bulge at the village of Thava in Valia Peta and from Dediapada it runs zig-

STATE HIGHWAYS.

zag, again in the south-east direction upto Sagbara. The road covers a distance of about 60 miles and in its course serves Ankleshwar, Valia, Dediapada and Sagbara. It crosses three bridges in the district :—

(i) Thava Bridge on the river Karjan at mile No. 35,
(ii) Dhamni Bridge over Dhamni Khadi at mile No. 43/2,
(iii) Ralda Bridge over Raida Khadi at mile No. 46/3.

The road, when complete, will have unmetalled surface, excepting the section between Netrang and Dediapada which will be metalled.

The road touches the following important places:

Ankleshwar	...	(mile no. 0/0; I. B. and T. B.)
Valia	...	(„ 12/0; D. B.)
Netrang	...	(„ 28/0; D. B.)
Dediapada	...	(„ 42/0; I. B. and T. B.)
Sagbara	...	(„ 59/5)

In its course from west to east the following roads either take off from this road or are crossed by it:

Place or poini of junction.	Mile No.	Name of the Road.	Classification
Ankleshwar	0/0	Kharod-Ankleshwar-Broach—Varedia section of N.H. No. 8.	N.H.
Ankleshwar	0/0	Sahol-Hansot-Ankleshwar-Broach-Jambusar-Masar Road.	S.H.
Valia	12/0	Jhagadia-Valia-Dehali-Vadi Road.	M.D.R.

Near the village Bedoli (mile 21/2) this road is met by the section of the road leaving Ankleshwar *via* Dadhal and Dharoli. This section is part of the only former State Highway in the district and was known as Ankleshwar-Dadhal-Dharoli-Netrang-Dediapada-Sagbara Road.

MAJOR DISTRICT ROADS.

Jhagadia-Valia-Dehali-Vadi Road: This road starts from Jhagadia town, and touching the existing Ankleshwar-Rajpipla Road near miles No. 12, it runs in southern direction till it reaches Valia town and from then the road runs in the east direction upto Dehali and winds its way at Vadi. The road serves the talukas of Jhagadia and Valia. In its course the road passes through

Jhagadia	...	(Mile 0/0; I. B. and T. B.)
Valia	...	(„ 12/0; T. B. and D. B.)
Dehali	...	(„ 16/0)
Vadi	...	(„ 25/3)

CHAPTER 9. — Transport and Communications. MAJOR DISTRICT ROADS.

and reaches Vadi at mile 25/3. The total length of the road is 25/3 miles. It is not an all weather road. It crosses the Kaveri and Kim rivers at mile No. 2/4 and 14/1 respectively. At none of these places there is a bridge or a cause-way. Most of the road has metalled surface. The following roads take off from or are crossed by this road.

Place or point of junction	Mile No.	Name of the Road.	Classification
Jhagadia	0/0	Ankleshwar-Dadhal-Rajpipla-Gora-Surpan Road.	M.D.R.
Talodra	10/0	Ankleshwar-Netrang-Dediapada-Sagbara Road.	S.H.
Valia	12/0	Ankleshwar-Kosamdi-Kondli-Valia-Netrang-Dediapada-Sagbara Road.	S.H.

Ankleshwar-Dadhal-Rajpipla Road:— The road starts from Ankleshwar (at mile 0/0), runs to the east upto Dadhal (about 4 miles) and takes the north-easterly direction to reach Rajpipla. The road has a length of 39 miles and serves the talukas of Ankleshwar, Jhagadia and Nandod. It crosses seven rivers and one Khadi, all of which are having bridges : first at mile 3/7 on Amravati river, the second on Kumar river at mile 4/3; the third on the Kaveri at mile 7/3; the forth on the Bhundva near mile 12/5; the fifth on the Bhulva Khadi near mile 15/6; the sixth on the Madhuvati at mile No. 25/2 and the last one over the Karjan at 39/0. In its course the road touches the following important places :

Ankleshwar ... (mile no. 0/0; I.B. and T.B.)
Jhagadia ... (mile no. 9/0; I.B. and T.B.)
Rajpipla ... (mile no. 14/0; I.B.)
Rajpipla ... (mile no. 39/0 I.B. and T.B.)

The following roads either take off from or are crossed by it :—

Place or point of junction.	Mile No.	Name of the Road.	Classification
Ankleshwar	0/0	Kharod-Ankleshwar-Broach-Varedia Section of N.H. No. 8.	N.H.
Ankleshwar	0/0	Sahol-Ankleshwar-Jambusar-Masar Road.	S.H.
Ankleshwar	0/0	Ankleshwar-Kosamdi-Kondh-Valia-Netrang-Dediapada-Sagbara Road.	S.H.
Dadhal	4/2	Ankleshwar-Dadhal-Dhordi-Netrang-Dediapada-Sagbara Road.	S.H.
Rajpipla	39/0	Rajpipla-Poicha Road.	O.D.R.

MAJOR DISTRICT ROADS.

Rajpipla-Gora Road: The road starts from the power house of Rajpipla town and runs in eastern direction upto Gora village. In its course from west to east it passes through the following villages: —

Vadia	...	(Mile 2/1)
Vavdi	...	(Mile 4/1)
Junda	...	(Mile 4/7)
Hirapara	...	(Mile 7/6)
Bhandra	...	(Mile 9/0)
Boria	...	(Mile 12/0)

and reaches Gora at mile 13.

The two roads described above (Ankleshwar-Dadhal-Rajpipla Road and Rajpipla-Gora Road) are sections of the major district road called Ankleshwar-Dadral-Rajpipla-Gora-Surpan Road which starts from Ankleshwar in Ankleshwar Taluka and terminates at Surpan in Nandod Taluka.

Sarod-Kavi Road : —This major disrict road is known as Jambusar-Sarod-Kavi Road. The road starts from Jambusar (mile No. 0/0); but upto Sarod (mile No. 9/0) the road is under the charge of District Local Board, Broach. From Sarod to Kavi (mile No. 16) a distance of 7 miles, the road is under the charge of the P.W.D.

Broach-Shuklatirth Road: —It starts from Broach (at mile No. 116) and after covering a short distance through the municipal limits of Broach town, it runs in the easterly direction till it reaches the holy place of Shuklatirth (at mile No. 10/4). The total length of the road in charge of the P. W. D. is 8/6 miles. It runs practically parallel to the Narmada on its right bank. It runs on the eastern side of the National Highway No. 8. This road is a section of the major district road called Broach-Shuklatirth-Angareshwar-Shahabad-Palej. Nearly half the length of this road has a black top surface while the rest of the portion has a metalled surface. The road serves Broach taluka only.

The following roads take off from this road : —

Place or point of junction.	Mile No.	Name of the Road.	Classification
Broach	0/0	Kharod-Ankleshwar-Broach-Varedia Section of N.H. No. 8.	N.H.
Broach	0/0	Sahol-Hansot-Ankleshwar-Broach Jambusar-Masar Road.	S.H.

Broach-Bhensali-Dahej Road:—The road starts from the outer limits of the Broach town and runs in west direction till it reaches Dahej. It covers about 24 miles. In its course from east to west the

road passes through or near by the following places:—

Dehegam	...	(Mile 1/6)
Hinglot	...	(Mile 4/0)
Vesodra	...	(Mile 6/0)
Amodra	...	(Mile 8/0)
Naveta	...	(Mile 9/0)
Keshrole	...	(Mile 11/6)
Bhensali	...	(Mile 14/0)
Atali	...	(Mile 17/4)
Jalwa	...	(Mile 20/0)
Dahej	...	(Mile about 24/0)

The road crosses the Bhuki river at about mile No. 13.

Jambusar-Tankari Road:—The road takes off from the State Highway (Sahol-Hansot-Masar Road) at Jambusar (mile No. 0/0), runs in the south-west direction of Jambusar and reaches the village of Tankari (at mile No. 9/0). It serves Jambusar taluka only and crosses Gadai Khadi (at mile No. 6/2) where a bridge is under construction.

Amod-Rozatankaria Road:—The road takes off from S. H. (Sahol-Hansot-Masar Road) and starts from Amod (at mile No. 0/0; T. B.) and runs in south-west direction of Amod till it reaches Tankaria (at mile No. 7/6; D. B. and T. B.). The road covers in all 7/6 miles. The whole length of the road is unmetalled. It crosses the Dhadhar river creek twice, first at mile No. 1/3 (Nahier Khadi) and then at mile 2/5 (Achhod Khadi).

Derol-Vagra-Gandhar Road:—This road starts from mile no. 270 of the State Highway (Sahol-Hansot-Jambusar-Masar Road) at Derol and goes in north-west direction till it reaches Vagra and from there it goes straight in the western direction up to Keshwan village and thence in north-west direction upto Gandhar. In all the road covers about 24½ miles. In its course from Derol to Gandhar the road passes through or near by the following places:—

		Mile.
Argama		3-2
Ankot	...	5-3
Vagra	...	8-4
Sachan	...	10-0
Pahaj	...	12-2
Ochhan	...	14-0
Keshwan	...	18-0
Muler	...	19-4
Gandhar	...	22-0

MAJOR DISTRICT ROADS.

Amod-Sarbhan Road:—This is another road classified as Major District Road under the Post-War Road Reconstruction Plan. The road starts from Amod town (taking off from S. H. Sahol-Masar Road) and runs in east direction till it reaches Sarbhan (at mile No. 5/6). It is in fact a portion of the road called Amod-Sarbhan-Palej Road. Palej is a village just on the border of the district. The road serves only Amod mahal.

Rajpipla-Sisodra Road :—This Road joins Rajpipla town and Sisodra, a village situated on the bank of the river Narmada. The road starts from Rajpipla and runs in the western direction, slightly to the south, up to Amletha. Till Amletha the road forms part of the Rajpipla-Ankleshwar Road. From Amletha the road takes a turn to the north and runs in the same direction till it reaches Sisodra. The length of the road from Amletha to Sisodra is eight miles.

Hansot-Kantiajal Road :—There are two roads joining Hansot with Kantiajal. The one which is existing since long is under the District Local Board and the other, which has been classified as Major District Road, was aligned and earth work done by the Public Works Department during the scarcity year 1952. The earth work having been completed, the Public Works Department has now undertaken the work of bringing it to Major District Road Standard by executing cross drainage works and metalling the road. The total length of the road is 12 miles. The total length of the District Local Board road is 11 miles. Both the roads start from Hansot and run in the south-west direction till they reach Kantiajal.

Amod-Gandhar Road :—The road though regarded as Major District Road is at present only a cart track. The road starts from Amod and runs in the south-west direction for about 16 miles till it reaches Tankaria. This portion forms part of the Amod-Tankaria Road. From Tankaria the road runs in a westerly direction and reaches Gandhar after traversing eight miles from Tankaria.

"Other District Roads" and "Village Roads"

OTHER DISTRICT ROADS AND VILLAGE ROADS.

The following statement gives details of "Other District Roads" and "Village Roads" in charge of the District Local Board, Broach.

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Transport and Communications.

OTHER DISTRICT ROADS AND VILLAGE ROADS.

TABLE No. 1

STATEMENT SHOWING MILEAGE AND CLASSIFICATION OF ROADS UNDER THE JURISDICTION OF DISTRICT LOCAL BOARD, BROACH (AS ON 31ST MARCH, 1957).

Sr. No. 1	Name of the Road. 2	Classification 3	Asphalt. 4	Metal 5	Gravel 6	Kanker 7	Sandy 8	Earthen (Motorable) 9	Earthen (Unmotorable) 10	Total 11
			M. F. Ft.	M. F. Ft.	M. F. Ft.	M. F. Ft.	M. F. Ft.	M. F. Ft.	M. F. Ft.	M. F. Ft.
	Broach Division.									
	Broach Taluka									
1.	Broach Bhensli Road	M.D.R.	—	13-0-0	—	—	—	—	—	13-0- 0
2.	Samni Varedia Road	O.D.R.	—	—	—	—	—	9-2- 0	—	9-2- 0
3.	Broach-Palei Road	O.D.R.	—	—	—	9-0- 0	—	7-0- 0	—	16-0- 0
4.	Palej-Kamboli Road	N.C.	—	—	—	—	—	3-0- 0	—	3-0- 0
5.	Ankleshwar-Navetha Road*	O.D.R.	—	0-4- 0	—	1-6- 0	—	—	—	2-2- 0
6.	Broach-Kukarwada Road	N.C.	—	—	1-4-330	—	—	—	—	1-4-330
7.	Degam-Kukarwada Road	V.A.R.	—	—	1-5- 0	—	—	—	—	1-5-0
8.	Vajalpur-Station Road	N.C.	—	—	0-1-240	—	—	—	—	0-1-240
9.	Broach-Karmad Road†	O.D.R.	—	—	—	4-2-0	—	—	—	4-2-0
		Total	—	13-4-0	3-2-570	15-0-0	—	19-2-0	—	51-0-570
	Ankleshwar Taluka (Including Hansot Mahal)									
1.	Ankleshwar-Mandwa Road	V.A.R.	—	2-0- 0	—	—	—	2-4-0	—	4-4-0
2.	Ankleshwar-Panoli *via* Kharod Road	N.C.	—	0-4-330	—	1-0-0	1-5-330	4-6-0	—	8-0-0
3.	Ankleshwar-Sisodra Road	,,	—	—	—	—	—	11-0-0	—	11-0-0
4.	Divi-Borebhatha Road	O.D.R.	—	—	—	—	—	2-4-0	—	2-4-0
5.	Sajod-Harnpura Road	N.C.	—	—	—	2-4-0	—	—	—	2-4-0
6.	Hansot-Kantiajal Road	M.D.R.	—	—	—	—	—	11-0-0	—	11-0-0
7.	Hansot-Panoli Road	O.D.R.	—	—	2-0-0	6-0-0	—	3-0-0	—	11-0-0
8.	Ilav-Sabol Road	V.R.	—	1-4- 0	—	—	—	—	—	1-4-0
9.	Borebhatha-Furja Road	,,	—	—	—	—	—	1-4-0	—	1-4-0
10.	Alva-Sayan Road	,,	—	—	—	—	—	1-4-0	—	1-4-0
11.	Ilav-Dhamard-Vaghvan Road	N.C.	—	—	—	—	—	7-0-0	—	7-0-0
12.	Chilodra to Surti Ovara	,,	—	—	—	—	—	1-4-0	—	1-4-0
13.	Ankleshwar-Panoli *via* Umarvada	,,	—	—	—	—	2-0-330	4-0-0	—	6-0-330
		Total ..	—	4-0-330	2-0-0	9-4-0	3-6-0	50-2-0	—	69-4-330

N. C.=Not Classified. V. A. R.=Village Approach Road.

* The road from Navetha to Bhadbhut is under the P. W. D.

† Out of the length of 4-2 of this road, 1-6 is common portion with the National Highway and Broach-Karmad Road.

CHAPTER 9.
Transport and Communications.
OTHER DISTRICT ROADS AND VILLAGE ROADS.

TABLE 1 *(contd.)*

Sr. No. 1	Name of the Road. 2	Classification 3	Asphalt. 4	Metal 5	Gravel 6	Kanker 7	Sandy 8	Earthen (Motorable) 9	Earthen (Unmotorable) 10	Total 11
			M. F. Ft.	M. F. Ft.	M. F Ft.	M. F. Ft.	M. F. Ft.	M. F. Ft.	M. F. Ft.	M. F. Ft.
	Waghra Taluka and Amod Mahal									
1.	Derol-Waghra Road ..	M.D.R.	—	8-3-0	—	—	—	—	—	8-3-0
2.	Bhensli-Dehej Road ..	,,	—	—	—	10-7-0	—	—	—	10-7-0
3.	Wagra-Gandhar Road	,,	—	—	—	—	—	13-3-0	—	13-3-0
4.	Wagra-Samni Road ..	O.D.R.	—	—	—	5-2-0	—	—	—	5-2-0
5.	Wagra-Kerwada Road .	,,	—	—	—	4-6-0	—	—	—	4-6-0
6.	Wagra-Pakhajan Road	,,	—	—	—	8-2-330	—	—	—	8-2-330
7.	Pakhajan-Keshwan Road	N.C.	—	—	—	—	—	4-4-0	—	4-4-0
8.	Pakhajan-Dehej Road ..	O.D.R.	—	—	—	—	—	11-0-0	3-0-0	14-0-0
9.	Waghra-Station Road ..	V.R.	—	0-0-364	—	—	—	—	—	0-0-364
10.	Wagra-Saran Road	N.C.	—	—	—	2-1-330	—	—	—	2-1-330
11.	Amod-Sarbhan-Palej Road‡	O.D.R.	—	—	—	7-7-0	—	—	—	7-7-0
12.	Tanchha-Kerwada Road	V.R.	—	—	—	2-2-0	—	—	—	2-2-0
13.	Sarbhan-Matar-Mangrol Road	M.D.R.	—	—	—	—	—	3-0-0	2-0-0	5-0-0
14.	Danda-Dora-Ikher Road ..	N.C.	—	—	—	—	—	2-4-0	2-4-0	5-0-0
		Total	—	8-3-364	—	41-4-0	—	34-3-0	7-4-0	91-6-364
	Jambusar Taluka									
1	Jambusar-Tankari-Delva Road ..	M.D.R.	—	—	—	—	—	16-0-0	—	16-0-0
2	Jambusar-Sarod Road	,,	—	—	—	—	9-0-0	—	—	9-0-0
3	Jambusar-Jantran-Kora-Sarod Road	O.D.R.	—	—	—	—	5-0-0	5-0-0	1-0-0	11-0-0
4	Bhadkodra-Jantran-Kora-Sarod Road	,,	—	—	—	—	—	13-0-0	—	13-0-0
5	Bhadkodra-Devla Road	O.D.R.	—	—	—	—	—	5-0-0	—	5-0-0
6	Jambusar-Gajeera-Kareli Road ..	,,	—	0-2-0	—	2-2-0	—	10-0-0	—	12-4-0
		Total ..	—	0-2-0	—	2-2-0	14-0-0	49-0-0	1-0-0	66-4-0

‡ Total length of the road is 12-7-0, of which 5-0-0 is under P. W D. and 7-7-0. under District Local Board.

CHAPTER 9.

Transport and Communications.
OTHER DISTRICT ROADS AND VILLAGE ROADS.

TABLE 1 (contd.)

Sr. No. 1	Name of the Road. 2	Classification 3	Asphalt. 4	Metal 5	Gravel 6	Kanker 7	Sandy 8	Earthen (Motorable) 9	Earthen (Unmotorable) 10	Total 11
			M. F. Ft.	M. F. Ft.	M. F. Ft.	M. F. Ft.	M. F. Ft.	M. F. Ft.	M. F. Ft.	M. F. Ft.
	Rajpipla Division									
	Jhagadia and Valia Mahal									
1	Gumandev-Samore Road ..	V.A.R.	—	—	—	—	0-2-0	5-0-0	—	5-2-0
2	Randedi-Kharchi Road ..	N.C.	—	—	—	—	—	5-6-0	—	5-6-0
3	Umalla-Panetha Road ..	O.D.R.	—	—	—	—	7-6-0	—	—	7-6-0
4	Umalla-Koliapada Road ..	N.C.	—	—	—	—	0-1-0	6-7-0	—	7-0-0
5	Umalla Velugam Road ..	"	—	—	—	—	—	6-0-0	—	6-0-0
6	Rajpardi-Netrang Road ..	O.D.R.	—	—	—	—	7-0-0	7-1-0	—	14-1-0
7	Rajpardi-Padvania via Amalzar ..	"	—	—	—	—	0-2-0	5-6-0	—	6-0-0
8	Jhagadia-Rajpardi Avidha ..	"	—	—	—	—	3-0-0	2-2-0	—	5-2-0
9	Jhagadia-Bhalod via Prankad-Jersad ..	"	—	—	—	—	2-2-0	3-0-0	—	5-2-0
10	Rajpardi-Bhalod Road ..	"	—	4-0-0	—	—	—	—	—	4-0-0
11	Jhagadia-Madhi Road ..	N.C.	—	1-3-0	—	—	—	0-5-0	—	2-0-0
12	Jhagadia-Ratanpore-Lakhva ..	"	—	3-0-0	—	—	—	9-0-0	—	12-0-0
13	Jhagadia-Daroli-Kanchanpura-Vasna ..	O.D.R.	—	—	—	—	8-0-0	1-5-0	—	9-5-0
14	Dharoli-Jolva ..	N.C.	—	4-0-0	—	—	—	8-0-0	—	12-0-0
15	Tothidra-Bhalod Road ..	V.R.	—	—	—	—	—	2-6-0	—	2-6-0
16	Umalla-Panetha-Indore Road ..	O.D.R.	—	—	—	—	10-0-0	2-4-0	—	12-4-0
17	Valia-Vataria-Siludi-Bharan Road	N.C.	—	3-0-0	—	—	—	9-0-0	—	12-0-0
18	Valia-Kondh Road ..	O.D.R.	—	—	—	—	—	4-2-0	—	4-2-0
19	Valia-Mela-Dungri Road ..	"	—	—	—	—	—	4-0-0	—	4-0-0
20	Valia-Mela via Kanerao Road ..	N.C.	—	—	—	6-0-0	—	—	—	6-0-0
21	Valia-Jhankhvav Road ..	"	—	2-3-0	—	—	—	9-5-0	—	12-0-0
22	Deli-Mela via Sodgam Tuna Road	"	—	—	—	—	3-0-0	3-1-0	—	6-1-0
23	Valia-Deli-Thava via Kovli-Mandvi Road ..	O.D.R.	—	—	—	—	—	20-0-0	—	20-0-0
24	Valia-Dharoli Road ..	N.C.	—	—	—	—	—	5-0-0	—	5-0-0
25	Netrang-Jhankhvav Road ..	"	—	—	—	—	2-0-0	11-4-0	—	13-4-0
26	Yal-Netrang Road ..	"	—	—	—	—	—	5-4-0	—	5-4-0
27	Yal-Dharmatalao Road ..	"	—	—	—	—	—	9-0-0	—	9-0-0
28	Thava-Kevdi Road ..	O.D.R.	—	—	—	—	—	10-0-0	—	10-0-0
		Total ..	—	17-6-0	—	6-0-0	43-5-0	157-2-0	—	224-5-0

TABLE 1 (*contd.*)

Sr. No. 1	Name of the Road 2	Classification 3	Asphalt 4	Metal 5	Gravel 6	Kanker	Sandy 8	Earthen (Motorable) 9	Earthen (Unmotorable) 10	Total 11
	Nandod Taluka									
1	Rajpipla-Netrang Road ..	O.D.R.	—	—	—	—	—	17-5-0	4-0-0	21-5-0
2	Rajpipla-Sukhdev Road ..	N.C.	—	—	—	—	—	5-4-0	—	5-4-0
3	Amletha-Sisodra Road ..	M.D.R.	—	—	—	3-0-0	1-0-0	4-6-0	—	8-6-0
4	Gardeshwar-Tanakhala Road ..	N.C.	—	7-6-0	—	—	—	2-4-0	—	10-2-0
5	Pratapnagar-Vadi Road ..	,,	—	—	—	—	—	4-0-0	3-0-0	7-0-0
6	Mangrol-Lachharas Road ..	O.D.R.	—	—	—	—	—	4-0-0	—	4-0-0
7	Khadgada-Vaghodia Road ..	N.C	—	—	—	—	—	6-0-0	—	6-0-0
8	Gardeshwar-Gulvani *via* Gabhana Road ..	O.D R.	—	—	—	—	—	14-0-0	—	14-0-0
9	Hirapore-Jesalpore Road ..	N.C.	—	—	—	—	—	14-0-0	—	14-0-0
10	Rajuvadia-Indore Road ..	O.D.R.	—	—	—	—	6-0-0	6-1-0	—	12-1-0
11	Umalla-Nikoli Road ..	,,	—	—	—	—	6-0-0	3-3-0	—	9-3-0
12	Distillery-Karjan Circular Road	N.C.	—	3-0-0	—	—	—	—	—	3-0-0
13	Rajpipla-Lachharas Road ..	M.D.R.	—	4-0-0	—	—	—	—	—	4-0-0
14	Vavdi-Rampur Road ..	O.D.R.	2-4-0	2-4-0	—	—	—	—	—	5-0-0
15	Indravrna Approach Road ..	N.C.	—	2-0-0	—	—	—	—	—	2-0-0
16	Rajpipla Dediapada *via* Lal Darwaja Road ..	O.D.R.	—	3-0-0	—	—	—	10-0-0	5-0-0	18-0-0
17	Rampura-Mangrol Road ..	O.D.R.	—	1-1-0	—	—	—	—	—	1-1-0
		Total ..	2-4-0	23-3-0	—	3-0-0	13-0-0	91-7-0	12-0-0	145-6-0
	Dediapada Taluka									
1	Dediapada-Dumkhal Road ..	O.D.R.	—	—	—	—	—	20-0-0	—	20-0-0
2	Gora-Piplod-Samot Road ..	,,	—	—	—	—	—	31-2-0	—	31-2-0
3	Surpan-Dumkhal-Samot Road ..	,,	—	—	—	—	—	—	20-0-0	20-0-0
4	Sejpore-Gangapore Road ..	,,	—	—	—	—	—	15-0-0	—	15-0-0
5	Sagbara-Kevdi Road ..	,,	—	—	—	—	—	24-0-0	—	24-0-0
6	Sagbara-Selmba-Jodwan Road ..	,,	—	—	—	—	—	10-0-0	—	10-0-0
7	Dediapada-Nigat-Kevdi Road ..	,,	—	—	—	—	—	12-0-0	—	12-0-0
8	Sagbara-Slamba-Panchpipli Road	,,	—	—	—	—	—	5-0-0	—	5-5-0
		Total ..	—	—	—	—	—	117-2-0	20-0-0	137-2-0
	Grand Total (for the district)		2-4-0	67-3-34	5-2-570	77-2-0	74-2-330	519-2-0	40-4-0	786-4-604

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Transport and Communications.

OTHER DISTRICT ROADS AND VILLAGE ROADS.

Save a few village roads, the Public Works Department of the State, the District Local Board and the Municipalities of the district are responsible for various road lengths under their control. The following table gives the road mileage, along with their surface condition, in respect of all the roads according to the authority which maintains them.

TABLE No. 2.

BROACH DISTRICT : STATISTICS OF ROAD MILEAGE (as on 31st March, 1957).

Category.	**Metalled.*	*Unmetalled.*	*Total.*
P. W. D. Roads	138-4-450	81-5-0	220-1-450
D. L. B. Roads	69-7-34	716-5-240	786-4-274
Municipal Roads@	32-3-0	20-6-0	53-1-0
Total...	240-6-484	819-0-240	1,059-7-64

* Concrete and asphalt portions which are relatively small road lengths, have been treated as metalled roads.

@ These figures are only approximate as the latest figures for the Broach municipality were not available. Figures for 1953 have been used for that municipality.

These figures indicate that Broach district has in all about 1,059-7-64 miles of roads, of which 240-6-484 are metalled and the rest unmetalled. These figures interpreted in relation to area and population, namely 2911.4 sq. miles and 7,06,035 persons respectively, mean, that one mile of road in Broach district serves an area of about 2.75 sq. miles and 666 persons.

MUNICIPAL ROADS.

In order to throw some further light on urban road statistics an analysis of road mileage in the four municipalities of the district (as reported in 1957) is given in the following table.

Statistics of municipal roads in Broach District

Name of the Municipality.	*Metalled.*	*Unmetalled.*	*Total.*
Ankleshwar	3.20	4.20	7.40
Broach*	17.83	--	17.83
Jambusar	2.36	4.51	6.87
Rajpipla	9.00	12.00	21.00

*Figures relate to 1953.

VEHICLES.

The number of motor vehicles, along with their categories, in Broach district in 1953 was as follows.

Passenger motor buses 62; taxi cabs 4; public carriers 169; private carriers 28 and motor cars 270 Besides these there are

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Transport and Communications.

VEHICLES.

bicycles and tongas (horse-drawn vehicles) plying in the district. The number of such vehicles in the four municipal towns of the district is shown below :—

Municipal town	*Bicycles*	*Tongas*
Jambusar	100	14
Rajpipla	700	4
Broach	*	145
Ankleshwar	*	*

Bullock Carts.

There were about 32,081 bullock carts in the district in July 1956. A majority of the bullock carts are used for agricultural purposes, but quite a few of them are used for carrying agricultural produce to nearby villages and towns. The number of bullock carts in each taluka and peta in July 1956 was as follows :—

Name of Taluka or Peta.	*No. of bullock carts.*
Ankleshwar	2,911
Jambusar	4,522
Wagra	2,692
Nandod	3,870
Jhagadia	3,912
Broach	4,496
Hansot	2,200
Amod	3,334
Valia	2,959
Dediapada	77
Sagbara	1,108
Total...	32,081

As a part of policy of the Government to decentralise administration of roads with a view to ensuring their proper maintenance and improvement, the Government decided as per their resolution No. RMR/5554, dated 1st February, 1954, to transfer many Major District Roads, Other District Roads and Village Roads from the Public Works Department to the various District Local Boards in the State. As a result of this policy the following roads have been transferred from the Public Works Department, Broach to the District Local Board, Broach.

	Name of the road.	Classification.	M. F. Ft.
1.	Rajpipla-Dediapada Road (Old)	M.D.R.	5—0—0
2.	Rajpipla-Dediapada Road (New)	„	24—0—0
3.	Rajpipla-Bhandara-Gora-Surpar-Kanjal Road. ... (Rajpipla-Gora Section).	„	11—4—0
4.	Ankleshwar-Borebhata Road.	O.D.R.	3—0—0
5.	Jambusar-Brahmanvasi Road	„	8—0—0
6.	Jambusar-Dewan Road	V.R.	0—4—0
7.	Jambusar Station Road	V.R.	0—6—0
8.	Amod-Sarbhan-Matar-Miyagam *via* Sampal Road	M.D.R.	3—0—0
		Total...	55—6—0

*Not available.

CHAPTER 9.

Transport and Communications. Bridges.

As a considerable number of rivers, rivulets and creeks criss-cross the countryside of Broach district, it has become necessary in the interests of smooth and quick road transport to build bridges over rivers and creeks, at points where roads with heavy traffic loads intersect the rivers.

There are in all seven major bridges under the Public Works Department in Broach district.

1. *Road bridge across the Narmada river near Broach on the National Highway at mile no. 263.*—This railway bridge was taken over by the Public Works Department after the construction of the new railway bridge known as the "Silver Jubilee Bridge" in 1935 and was converted into a road bridge in 1943. This bridge (constructed in 1880-81) has become very old and has, in fact, outlived its life. The whole superstructure deflects and vibrates, when heavy vehicles ply on it. It is, therefore, open only to light vehicular traffic (with axle load 1.7 tons and speed 10 m. p. h.). The bridge which is now (1957) being remodelled is estimated to cost Rs. 84 lakhs.

2. *Bridge over the Bhukhi* :—This is an arched bridge over the Bhukhi Khadi with a linear water way of 120 running feet on the State Highway (Sahol-Hansot-Ankleshwar-Broach-Jambusar-Masar Road) between Dayadra and Kelad at mile No. 275/7. The river is rain fed and the bed at the site is a soft rock. Having become very old and weak, the arches and piers of the bridge were recently dismantled and replaced by new piers and R. C. C. T. beam and slab decking. The bridge was completed in 1957.

3. *Bridge over the Vand Khadi* :—The stone masonry bridge over the Vand Khadi with a linear water way of 132 running feet on the State Highway (Sahol-Hansot-Ankleshwar-Broach-Jambusar-Masar road) near Utraj at mile No. 246 was constructed in the year 1877. The river is rain fed and the bed at the site is a soft rock. The river has a catchment area of 12 sq. miles. The bridge has three spans, each span being 44 feet in length.

4 *Bridge over the Kim* :—The high level stone masonry bridge over the Kim river with a linear water way of 396 running feet on the State Highway (Sahol-Hansot-Ankleshwar-Broach-Jambusar-Masar Road) at mile No. 234/4 was constructed in 1893. The river is rain fed and the bed at the site is yellow earth mixed with sand. The river has a catchment area of 30 sq. miles. The bridge has nine spans, each span measuring 44 feet in length. The arches of the bridge having become very weak and old, were recently dismantled and replaced by R. C. C. T. beam and slab decking.

5. *Bridge over the Ghamnad channel* :—The R. C. C. bridge over the Ghamnad channel on the State Highway referred to above, at mile No. 282/5 was constructed in the year 1937 at a total cost of Rs. 18,497. The bridge has a linear waterway of 105 running feet. The river has a catchment area of 32 sq. miles. The river

is rain fed and the bed at the site of the river is yellow earth. The bridge has three spans, each span measuring 35 feet in length. The bridge is known as Tancha bridge.

6. *Bridge over Nahir Khadi* :—The high level arch bridge over the Nahiar Khadi near Nahir at mile No. 286/1 of the above State Highway was constructed in 1872. This bridge, having become very weak and old collapsed in 1956 due to heavy floods. Construction of the new bridge has commenced. It will have a linear water-way of 176 feet. The sub-structure of the bridge will comprise well foundation for two central piers and open foundation for the abut-ments. Its superstructure will consist of R. C. C. T. beam and seal balanced cantilever.

7. *Bridge over the Dhadhar* :—The steel bridge over the Dha-dhar river, about two miles from Amod, on the above State High-way at mile No. 289/6 was constructed in 1888 It has a linear water-way of 368 feet. The river is tidal and the bed at the site is yellow earth. The bridge has 4 spans, each span measuring 88 feet in length. The bridge has become very old and the trongh sleepers have corroded at places.

Besides these major bridges and causeways, there are many mi-nor bridges under the control of the Public Works Department in Broach district. In addition to these there are a few bridges and low-level causeways under the Broach District Local Board. But the bridges under the District Local Board, Broach, when compared with the Public Works Department bridges and causeways, are small and they cost less. Following is a statement of important brid-ges and low-level causeways under District Local Board, Broach.

Sr. No.	Name of Bridge.	Location	Year of construction	Cost of construction.
				Rs.
1	Islampur Bridge ..	On creek between Islampur and Tankari near Islampur village on Tankar Delva Road.	190	12,534
2	Achhod Bridge	On Amod Tankaria Road (M.D.R.)	1865-66	9,075
3	Bhukhi Bridge .	On Derol Wagra Road (M.D.R.	—	—
4	Low Level Causeway ..	On Ankleshwar Sisodra Road near Amboli	1952-53	—
5	Low Level Causeway ..	On Amod Palej Road near Sarbhan M.D.R.)	1934-35	—
6	Second Achhod Bridge	Near Village Achhod (M.D.R.)	1927-28	—
7	Koteshwar Bridge	On Hansot Kantiajal Road proposed (M.D.R.)	1934-35	—
8	Karmad Bridge	On Broach Karmad Road (near Bhukh-Khadi between Karmad Kesarol and Bhensali)	1953-54	—
9	Bhensali Bridge ..	Near Bhensali on Broach Dahej Road (M.D.R.)	1887	—

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Bridges.

Sr. No.	Name of Bridge	Location	Year of construction	Cost of construction
10	Doli Bridge ..	On creek near village Doli on Jambusar Tankari Road (O.D.R.)	1882-83	11,654
11	Khadoi Bridge	On Khdoi Khadi between Jambusar and Kalak on Jambusar Tankari Road (O.D.R.)	1882-83	—
12	Khanpore Bridge ..	Near Village Khanpore on Khanpore Khadi.	1932-33	—
13	Limoj Bridge	On Jambusar Jantan road near village Limoj	1953-54	—
14	Kava Bridge ..	On Jambusar Jantran Road near village Kava.	1953-54	—

The Islampur bridge (No. 1) and the second Achhod bridge (No. 6) are at present in dilapidated condition and proposals have been already made to demolish and reconstruct them. The Bhensali bridge (No. 9), though actually constructed in 1887, collapsed in 1947 and was reconstructed by the Public Works Department in 1956. The Dholi bridge (No. 10) was also actually constructed in 1882-83; but as the wooden pile piers had decayed, the P. W. D. reconstructed the bridge in 1956-57.

In 1956-57, one bridge was constructed near Shrikothi in Amod mahal at a cost of Rs. 18,711. It has five spans of ten feet each. Another minor bridge was constructed near mile No. 2 on Gardeshwar-Tanakhala Road at a cost of Rs. 14,343. It has one span of 25 feet. A new causeway was constructed on Broach-Kansia Road by the District Local Board in 1953-54 at a cost of Rs. 12,444.

Besides the maintenance of roads (already described), in working condition, the Government have undertaken or planned to undertake the construction of a number of new roads and bridges in the district and Government have also taken on hand the preparation of plans, inviting tenders etc. for them. Construction of some of them is already in progress and the others are under investigation. The following tables show the present position of the bridge works and road works under construction in the jurisdiction of the Executive Engineer, Broach Division (as on 31st March, 1957).

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Transport and Communications.

ROADS UNDER CONSTRUCTION.

TABLE No. 3.

TALUKAWISE DISTRIBUTION OF ROADS, UNDER CONSTRUCTON, UNDER THE JURISDICTION OF THE EXECUTIVE ENGINEER BROACH DIVISION (AS ON 31ST MARCH, 1957)

Taluka or Mahal	Description of the Road				Nature of the road			Unmetalled	River it crosses (with mile No.
	Name of the Road	Classification.	Starting point.	Ending point.	Metalled				
					C.C. Surface	B.T. Surface	W.B.M. Surface		
1	2	3	4	5	6	7	8	9	10
1. Hansot	Hansot Kantiajal road	M.D.R.	0/0	12-0-0	—	—	—	12-0-0	Vani Khadi M. No. 5/0.
2 Ankleshwar	1. B. A. Road-*Kharod-Ankleshwar-Broach-Waredia (Kharod-Ankleshwar section).	N.H.	226-1-580	233-4-0	—	—	7-2-80	—	Amla Khadi M. No. 232/1.
	2. Ankleshsar-Kosamdi-Kondh-Valia-Netrang-Dediapada-Sagabara Road.	S.H.	0/0	5-0-0	—	—	—	5-0-0	
	3. Dahal-Rajpipla road ...	M.D.R.	0/0	2-0-0	—	—	—	2-0-0	
3. Broach	1 B. A. Road Kharod-Ankleshwar Broach-Waredia Road (Section Broach to Waredia including north approaches).	N.H.	238-3-0	251-3-300	—	—	13-0-200	—	Bhukhi River M. No. 249/5.

* B. A. Road—Bombay-Ahmedabad Road.

CHAPTER 9. Transport and Communications. ROADS UNDER CONSTRUCTION.

TABLE No. 3 (*contd.*)

Taluka or Mahal	Description of Road				Nature of the road				River it crosses (with mile No.)
					Metalled			Unmetalled	
	Name of the Road	Classification.	Starting point.	Ending point.	C.C. Surface	B.T. Surface	W.B.M. Surface		
1	2	3	4	5	6	7	8	9	10
	2. Dayadra-Nabipur Shahbad Road.	O.D.R.	0/0	12-7-0	—	—	—	12-7-0	—
4. Wagra ...	—	—	—	—	—	—	—	—	—
5. Amod	1. Amod-Sarbhan Road	M.D.R.	0/0	5-6-0	—	—	—	5-6-0	—
	2. Amod-Tankaria Road	O.D.R.	0,0	7-6-0	—	—	—	7-6-0	*i* Nahier Khadi at M. No. 1/4 of Amod - Roza - Tankaria road. *ii.* Achhod Khadi in M. No. 2/5 of Amod - Roza - Tankaria Road.
6. Jambusar	1. Jambusar-Sarod-Kavi Road (Sarod-Kavi section)	M.D.R.	9-0-0	16-0-0	—	—	—	7-0-0	
	2. Jambusar-Tankaria-Devla Road (Jambusar to Tankaria section)	,,	0/0	9-0-0	—	—	—	9-0-0	Gadai Khadi, M. No.6/2.
7. Valia	1. Ankleshwar-Kosamdi-Kondh-Netrang-Dedia-pada-Sagbara Road (New alignment from Ankleshwar to Pathar)	S.H.	5-0-0	35-0-0	—	—	—	30-0-0	
	2. Jhagadia-Valia-Vadi-road (Dehli-Vadi section)	M.D.R.	14-4-0	25-3-0	—	—	—	10-7-0	

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ROADS UNDER CONSTRUCTION.

8. Jhagadia	Dadhal-Rajpipla Road	M.D.R.	2-0-0	26-0-0	—	—	—	24-0-0	1. Amravati River M. No. 3/7. 2. Kumar Khadi M. No. 4/3. 3. Kaveri River M. No. 5/1 4. Bhindwa Khadi M. No. 10/3 5. Bhulwa Khadi M. No. 23/0. 6. Madhuvati River .M. No. 23/0.
9. Nandod	1. Dhadhal-Rajpipla Road	M.D.R.	26-0-0	39-1-0	—	—	—	13-1-0	Karjan River M. No. 39/0.
	2. Rajpipla-Gora-Surpan Road (Gora-Surpan section).	M.D.R.	11-4-0	28-0-0	—	—	—	16-4-0	
10. Dediapada	Ankleshwar-Kosamdi-Kondh-Netrang-Dediapada-Sagbara Road.	S.H.	35-0-0	54-0-0	—	—	—	19-0-0	1. Dhamni Khadi 2. Ralda Khadi, M. No. 46/3.
11. Sagbara	Do.	„	54-0-0	60-0-0	—	—	—	6-0-0	
	Total						20-2-280	180-7-0	

CHAPTER 9. Transport and Construction. Bridges Under Communications.

TABLE No. 4

Bridge works under execution in Broach District.
(as on 31st March, 1957)

Sr. No.	Name of the Bridge	Name of the Road	Estimated cost.	Remarks
			Rs.	
1	Amla Khadi Bridge at mile No. 232/1	Kharod-Waredia section of N. H. No. 8	4,67,400	Work is in progress. Col. 4 shows expenditure incurred upto 31st March, 1957.
2	Broach-Shuklatirth overbridge at mile No. 238/2	—	92,200	Plans and estimates finalised. Work not yet started.
3	Thava Bridge at mile No. 35/0 on Karjan river	Ankleshwar-Kosamdi-Kondh—Valia--Netrang-Dediapada-Sagbara Road (S.H.)	3,84,635	Work is in progress
4	Dhamni Bridge at mile No. 43/2	Do.	1,18,961	Do.
5	Ralda Bridge at mile No. 46/3	Do.	1,08,364	Do.
6	Amravati Bridge at mile No. 3/7	Ankleshwar-Dadhal-Rajpipla Road (M.D.R.)	3,03,356	Do.
7	Kumar Bridge at mile No. 4/3	Do.	1,57,808	The bridge is almost completed.
8	Kaveri Bridge at mile No. 7/3	Do.	3,95,500	Work is in progres
9	Bhundva Khadi Bridge at mile No. 12/5.	Do.	1,09,018	Do.
10	Bhulva Bridge at mile No. 15/4	Do.	1,39,200	Do.
11	Madhuvati River Bridge at mile No. 25/2	Do.	2,07,200	Do.

There are routes, covering a route mileage of 577 and daily service mileage of 3,039 in the district.

State Transport.

As a part of the policy of putting public motor transport on a sound footing the Government of Bombay embarked on a policy of progressive nationalisation of road transport in 1947. Nationalisation of passenger transport was decided upon in August 1947 and transport operations were taken over by Government in June, 1948. They were subsequently handed over to a statutory corporation, the Bombay State Road Transport Corporation, in December 1949. The Corporation was reconstituted under Bombay State Road Transport Act (No. XXV of 1950).

Railways, which were introduced in the district in the latter part of the last century, challenged the pride of place which road transport had enjoyed, among the means of communication, since early times. This was the case especially in those areas which were directly served by railways. With the advent of automobiles on the roads after the closer of World War I (1918) roads began to regain their

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Transport Communications. and STATE TRANSPORT.

lost importance and by the end of World War II, a network of road communications operated by motor vehicles had been built up. The post-war years saw further progress in motor transport. A consider able number of motor owners engaged themselves in operating both passanger and goods vehicles and employed a large number of drivers and conductors. This progress, however, was not without its drawbacks. Many of the undesirable features of private ownership of bus operation, viz., duplication of services, uneconomic competition, lack of amenities for passengers, overcrowding, disregard of rules for the safety of passengers and speed limits and absence of healthy employer-employee relations, had cropped up. At this stage Government stepped in, and in pursuance of their general policy of nationalisation of road transport, took over certain routes in the district on 1st April 1955.

Details of S. T. operations.

For administrative convenience etc. the entire State has been divided into viable units called divisions which include entire districts or parts thereof. The officer-in-charge of each division is the Divisional Controller who is immediately under the control of the Central Office, of which the General Manager is the administrative head. Broach district falls partly in Surat Division and partly in Baroda Division.

Statistics of Routes.

The following table indicates the various routes in operation in the district, their mileage, the frequency of 'Up' and 'Down' trips etc. (Table No : Various Routes in operation in Broach District as on 31st December, 1957).

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STATE TRANSPORT

TABLE No.

VARIOUS ROUTES IN OPERATION IN BROACH DISTRICT AS ON 31ST DECEMBER, 1957

	Name of the Route	Distance	Fare in Rupees	No. of trips up	No. of trips Down	No. of passengers travelled per day per trip
	1	2	3	4	5	6
1	Broach-Buva	23-7	1.12	4	4	55
2	Broach-Chanchval	28-7	1.41	1	1	55
3	Vagra-Gandhar	13-7	0.61	1	1	36
4	Broach-Dahej	33-2	1.59	1	1	113
5	Broach-Jambusar	31-1	1.50	8	8	73
6	Broach-Nikora	11-5	0.56	6	6	35
7	Broach-Shuklatirth	9-4	0.37	5	5	21
8	Broach-Zanor	16-1	0.75	3	3	36
9	Broach-Keshrol	14-7	0.75	2	2	55
10	Broach-Vaghra	15-5	0.75	4	4	50
11	Broach-Kolwan	20-1	0.94	2	2	65
12	Broach-Amleshvar	14-4	0.65	2	2	48
13	Broach-Amod	24-1	1.12	1	1	29
14	Broach-Palej	20-4	0.94	3	3	66
15	Palej-Amod	16-3	0.75	1	1	58
16	Palej-Amod (Via-Dora)	17-2	0.84	1	1	64
17	Palej-Ikhar	3-6	0.19	1	1	33
18	Jambusar-Devla	22-3	1.03	2	2	29
19	Jambusar-Bhadkodra	16-3	0.75	1	1	36
20	Jambusar-Malpur	19-1	0 94	1	1	18
21	Jambusar-Chidra	16-0	0 75	2	2	29
22	Jambusar-Sarod	13-4	0 56	5	5	20
23	Jambusar-Tankaria	12-7	0.66	3	3	22
24	Jambusar-Kareli	16-4	0 66	2	2	42
25	Jambusar-Amanpur	12-1	0 94	1	1	37
26	Jambusar-Gajera	9-0	0 47	1	1	10
27	Jambusar-Kanwah	16-0	0 75	1	1	28
28	Ankleshwar-Hansot	13-1	0 56	9	9	75
29	Ankleshwar-Broach	8-2	0.37	11	11	14
30	Ankleshwar-Ilav	24-6	1 22	5	5	83
31	Jhagadia-Deli	16-0	0 75	3	3	96
32	Jhagadia Netrang	24-1	1.75	3	3	89
33	Jhagadia-Todidhara	13-5	0 66	2	2	66
34	Jhagadia-Ankleshwar	14-2	0 65	2	2	72
35	Jhagadia-Dharoli	12-4	0 56	1	1	41
36	Rajpipla-Ankleshwar	41-2	1 97	2	2	172
37	Rajpipla-Sisodra	16-0	0 75	1	1	56
38	Rajpipla-Gora	14-5	0.65	2	2	87
39	Rajpipla-Mangrol . ..	10-2	0 47	2	2	72
40	Rajpipla-Lachhras	5-4	0 28	2	2	37
41	Rajpipla-Poicha	9-6	0 47	6	6	57
42	Mandvi-Mangrol	30-5	1 50	1	1	64
43	Poicha-Lachhras	10-5	0 56	2	2	32
44	Rajpardi-Todidhara	7-4	0.37	3	3	69
	Grand Total ..	740-0		122	122	3,245

It will be seen from the table that in December 1957, State Transport had 44 routes operating within the district, with a daily average run of 740 miles and 3,245 passengers travelling per day trip. The total daily frequencies of 'UP' and 'Down' trips on these routes were 122 each.

of the 44 routes in operation, 14 emanated from Broach which is one of the important cotton trade centres in India and the district headquarters, 10 from Jambusar, six from Rajpipla and three from Ankleshwar, all being important cotton trade centres. Other important State Transport Stations (with the number of routes emanating from each indicated in brackets) were Jhagadia (5) and Palej (3). Besides the routes running *within* the district, there were several routes which emanated from Broach district and terminated in the adjoining district. Similarly there were other routes which emanated from

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other districts and terminated in this district. The various routes are fixed by the Divisional State Transport authorities and the frequency of trips and the number of vehicles on the routes are increased or decreased from time to time according to traffic needs. These routes are so planned that all the important trade centres are linked to each other. During monsoon some of the routes, operated on bad roads, are altered or suspended and what is called 'the monsoon time table' comes into force.

Maintenance and Repairs.

Light and heavy repairs of the buses are carried out at divisional workshops at Baroda and Surat. Further, after operation of every 12,000 miles, the vehicles are routed by the depots to divisional workshops for a thorough check-up. For the daily maintenance of vehicles State Transport maintains at various centres depot and sub-depot workshops which carry out oiling, greasing, cleaning and servicing of vehicles. On 31st December 1957, there were such depots (the number of vehicles attached to each workshop being shown in brackets) at Broach (24), Ankleshwar (7), Rajpipla (5) and Jhagadia (7). Except at Broach, the structures at all these depots were temporary. The total number of persons employed in each of these depots was 123, 43, 24 and 41 respectively.

Passenger Amenities.

State Transport plies buses which have spacious bodies and are well-ventilated. The average seating capacity of these is about 40 exclusive of the seats for driver and conductor. No overloading is permitted ; facilities for booking and reservation are provided at all important stations and terminals accommodation is provided according to priority; and sheds, stands, canteens, lavatories, and drinking water facilities are provided at important places. Special arrangements are made for visits to places of interest, pilgrimage centres, fairs, melas etc., at extra trip rates. State Transport also provides casual contract service at standard reasonable rates. Regularity of service and speed limits are fairly strictly observed and relief buses quickly made available in cases of break down. A box containing first-aid equipment is kept in every bus and conductors are trained in first aid methods. Arrangements are also made for recording complaints from the public and every efforts made to attend to such comlaints promptly.

Fares.

The rate of fares charged by State Transport, viz., five naye paise per mile, is arrived at on the basis of its operations throughout the State. It is, therefore, uniform throughout the State and is not related to its earnings in any particular division. The rate charged, it is claimed by State Transport, is the lowest one, consistent with its object of providing to the public speedy, safe comfortable travel with ample amenities, earning a reasonable return on capital invested, looking after the welfare of its numerous employees spread far and wide and also providing for further development and improvement of roads in the State. The charge, however, is based on a stage system,

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the fare being 20 n.P. for a stage of four miles and 10 n.P. for a sub-stage of two miles. The minimum charges is 0-20 n.P.

Staff and Organization.

For administrative purpose, as has been already stated, Broach district falls under both the Divisions of Surat and Baroda. The administrative staff of a Division includes the Divisional Controller, Traffic Manager, Accounts Officer, Divisional Statistician, Labour and Publicity Officer, and the entire staff working under them for guiding the affairs of the Division. The operational staff includes those who actually operate the bus routes, namely, drivers, conductors, depot managers, inspectors, and traffic controllers. The technical staff consists of all the workshop employees, ranging from Divisional Mechanical Engineer down to the various gradations of skilled and semi-skilled workers engaged in the workshops. The miscellaneous staff includes *naiks*, peons, gate-keepers, fire assistants, watchmen, etc.

Recruitment.

For recruitment of employees carrying a basic salary upto Rs. 100, is set up a Divisional Selection Committee consisting of (i) a member of the Bombay State Road Transport Corporation nominated by the Corporation as the chairman, (ii) the Divisional Controller, and (ii) the District Superintendent of Police and (iv) the Divisional Traffic Officer. For staff carrying a basic salary between Rs. 100 and Rs. 200, recruitment is done by a central Selection Committee for the whole of the State. For Class I and Class II cadres recruitment is made by the State Transport Service Board specifically created for the purpose.

Labour Welfare Activities.

In pursuance of their liberal policy towards their employees, State Transport has drawn up ambitious labour welfare plans. It encourages sports and funds are sanctioned every year for the purpose. These funds are utilised in supplying sports material to all units of the division, arranging tournaments etc. Sports clubs are functioning in all the units of each division. Quarterly bulletions are published and distributed free to workers. State Transport Worker's Union, affilitiated to the Indian National Trade Union Congress is functioning in both the divisions and is recognised by the Corporation. The representatives of the union have an easy access to the heads of the divisions on behalf of the workers for seeking redress of their grievances.

FERRIES. Remuneration.

Ferries are either perennial or seasonal. Those that are considered important are declared by Government as "public ferries" under the Bombay Ferries Act (II of 1868). Public ferries are managed either by the State Government or by the local bodies in whom they are vested by Government. In some cases even village panchayats have been vested with the management of public ferries. In certain cases where the ferries are between the District Local Board area and a municipal area, they are placed under the joint manage-

FERRIES. Remuneration.

ment of the District Local Board and the municipality concerned. Recently Government have adopted the policy of vesting all public ferries, in the local bodies concerned. The maximum fare to be levied for carrying passengers, carts, carriages, cattle and other animals and on all goods and merchants over these ferries has to be approved by the State Government. In the case of some ferries, the passengers are carried free, the cost being met by the District Local Board. A public ferry is usually leased to a contractor who is given the monopoly to carry passengers and goods over it.

There are ferries over the Mahi, the Tapi, the Dhadhar and the Narmada. A list of the existing ferries is given below. The ferries over the Narmada, except those over the creeks at the mouth, are given in their order upstream from Broach city. Eight of these ferries, which have one of their points in the Baroda district, are outside the jurisdiction of the authorities in the Broach district.

BROACH DISTRICT : Ferries.

Over the Mahi :

(1) Kavi(Jambusar T.) and Cambay [with a sub-ghet between (Jambusar T.) and Dhuwaran (Cambay)]. The bed of the river Mahi is silted, and except at the time of hightide water the boats cannot cross it direct to Cambay. So, the ferry is run for most part of the year between Kavi and Dhuwaran (a place six miles from Cambay). There is a motor bus service between Dhuwaran and Cambay.

Over the Tapi (and its tributaries) :

(2) Jodwan and Shivajiganj (Surat district). There is a public ferry on a tributary of the Tapi between Jodwan and Khaidi. There is another ferry plying direct from Jadwan to Shivajiganj.

Over the Dhadhar :

(3) Tankari (Jambusar T.) and Gandhar (Vagra T.).
(4) Bojadra (Jambusar T.) and Rameshwar (Amod P.).

Over the Narmada and its tributaries (the Khandis (creeks) at its mouth)

(5) Vilayat (Vagra T.) over Bhukhi Khadi.
(6) Badodra (Hansot P.) and Dantrai (Hansot P.) over Vand Khadi.
(7) Mandva (Ankleshwar T.) and Kansia (Ankleshwar T.) over the Umaravati Khadi.
(8) Dhanturia (an island village in Broach T.) and Vadva (Broach T.).
(9) Kukarwada (Broach T.) and Sakkarpore (Ankleshwar T.).
(10) Furja and Borbhatha (Broach town).
(11) Mahini Undai and Borbhatha (Broach town).
(12) Zadeshwar (Broach T.) and the bet lands on the opposite side of the river.
(13) Kansia (Ankleshwar T.).

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(14) Tawara (Broach T.).
(15) Kadod (Broach T.).
(16) Shuklatirth (Broach T.) and Madhi (Jhagadia T.).
(17) Mangaleshwar (Broach T.).
(18) Dhanda Ovara (Nikora village, Broach T.) to Kabirvadbet in the Narmada
(19) Mota Ovara (Nikora village, Broach T.), to Kabirvadbet in the Narmada.
(20) Narsipur (Nikora village, Broach T.) to Kabirvadbet in the Narmada.
(21) Pora (Jhagadia T.) and Kabirvadbet. (Known as Pora-Nikora ferry).
(22) Angareshwar (Broach T.).
(23) Dharamsala (a suburb of village Zanor in Broach T.).
(24) Tarsali (Jhagadia T.) and Nand (Broach T.).
(25) Nand (Broach T.) — a seasonal ferry half a mile eastward of the above ferry (24) at the next end of the village.
(26) Para (Baroda) and Tothidra (Jhagadia T.).
(27) Bhalod (Jhagadia T.), Koral (Baroda).
(28) Koral (Baroda) and Vanakpor village lands called Krishnapori hamlet (Jhagadia T.).
(29) Kakalpor (Jhagadia T. and Billipara Baroda).
(30) Nanavasna (Jhagadia T.) and Zimbad (Baroda).
(31) Velugam (Jhagadia T.) and Nareshwar (Baroda).
(32) Malsar (Baroda) and Asa (Jhagadia T.).
(33) Navara (Nandod T.) and Malsar (Baroda).
(34) Rajapara (Nandod T.) and Sinor (Baroda).
(35) Ori (Nandod T.) and Amali (Baroda).
(36) Patna (Nandod T.) and Barkal (Baroda).
(37) Rajpipla on the right bank of the Karjan and Ramgadh on the left bank.
(38) Jitnagar on the right bank of the Karjan and Kilanimavadi on the left bank.
(39) Narkhadi (Nandod T.) and Gangnath (Baroda).
(40) Chandod (Baroda) and Poicha (Nandod T.).
(41) Jior (Nandod T.). and Gangnath (Baroda).
(42) Sehrav (Nandod T.) to Ganjshahuda (in village Tilakwada in Baroda.
(43) Tilakwada (Baroda) to Sehrav village land (Nandod T.).
(44) Vasan (Baroda) and Mangrol (Nandod T.).
(45) Rengan (Baroda) and Rampura (Nandod T.).
(46) Sinor (Baroda) to Sisodra (Nandod T.).
(47) Sanjaroli (Nandod T.) and Surajwad (Nandod T.).
(48) Gardeshwar (Nandod T.) and Indravarna (Nandod T.).

Generally two kinds of boats ply in these ferry services. One is *machhawa* and the other is called *navadi* or *hodi*. The *navadi* has a sub-type called *panai*. *Machhawas* ply from Kavi to Cambay, Tankari to Gandhar, Bojadra to Rameshwar, Jodvan to Shivajiganj

and on all ferries on the main Narmada river from Dhanturia-Vadva ferry to eastward up to Bhalod-Koral ferry. From Bhalod to eastward up to Poicha-Chandod ferry, big sized *penais* are used except at Malsar and Nanavasna ferries where *machhawas* are used. At the Chandod — Poicha ferry, both *machhawas* and *panais* are plied. From Chandod to Gardeshwar and onwards medium sized Panais called 'ponias' meaning threeforths and small sized ones called 'adadhias' meaning 'half' (or Kotiyas) are plied. At Gardeshwar a big *machhawa* decked with planks is plied in addition to a ponia. From Navagam to Surpan, hollowed trunks of trees with seating capacity of three persons, called 'adias' are used for the whole year except for a limited time in the monsoon when *adadhias* (or *Kotiyas*) are used. Besides the above mentioned boats, either rafts or hollowed trunks of trees are used by villagers to cross the small creeks and *nalas* flooded with rain water. A landlord at Kansia about four miles from Broach town has a 40 H. P. diesel-oil-engined launch of his own with a seating capacity of 26 persons, and, at Broach the Police Department has maintained a petrol-operated 3½ H. P. engined dinghy boat having seating capacity for eight persons. For these vessels a pass note called *Khadi pass* for proceeding up a river is issued by the Customs authorities which is required to be kept by the *tandel* (captain) of the boat in the vessel when making journey on the river. Each boat plying in the ferries is required to be marked by a load line leaving a free board above the water surface to the extent of 3.5 inches in the fair season and 4 inches in the monsoon to every foot of the moulded depth of the vessel, provided that not less than 12 inches for boats of the length of 20 feet and less, and not less than 18 inches for boats 40 feet and more in length is kept. It is to be marked on the boat on both sides and in the middle of it from the fore to the *aft*. The boats are to be inspected by the Executive Engineer, Public Works Department for the ferries vesting in Government, and by the Engineer of the District Local Board or the Municipality if they vest in those bodies. This inspection is to be made twice a year, once in the month of May and a second time in July. Four square feet of space is to be provided for each passenger in the boat and the weight of a man is to be considered 120 lbs. According to the Bombay Minor Ports Passenger Vessels Rules, 1941, a licence from the Customs Authorities is necessary for every vessel plying in the limit of any minor port for carrying passengers on hire or otherwise. No fee is charged for granting such licence but a fee of annas three is charged as cost of the printed licence book issued to the owner of the boat. Under the Bombay Ferries Vessels Act, (II of 1868), the Government of Bombay has made a rule empowering certain officers to grant licences, under section 14 C of the Act, in respect of ferries and vessels. Accordingly the Executive Engineers of the Divisions are empowered to grant licences in respect of public ferries vesting in Government and vessels plying in any river, stream, creek, tank, lake or other collection of water affording passage for a vessel in their charge. The Chairman of the Joint Committee for

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the Management of the Public Ferries is authorised to grant licences in respect of public ferries and vessels vested jointly in local bodies and within their jurisdiction. For the ferries and vessels which are not specified in the above mentioned two categories and which are within the jurisdiction of the District Local Boards, the Presidents of such District Local Boards have to grant licences.

The following is a brief description of the different kinds of crafts plying in the rivers, creeks and along the coast of the district except the rafts and hollowed trunks of trees called "*odias*".[1]

Panai :—This is a flat bottomed boat with only one sail and a draft of one foot. It is of various sizes. The small one called "*adhadhia*" (meaning half) is about 18 feet long, with a load capacity of about 1·5 tons. It costs between Rs. 800 and Rs. 900. The medium sized one called "ponia" is 25 to 28 feet long and has a long capacity of about four tons. Its cost ranges between Rs. 1,400 and Rs. 2,000. The bigger one is about 30 to 40 feet in length, with a load capacity of about five to six tons and costs between Rs. 2,500 and Rs. 3,000. The *adhadhies* and *ponias* have one *tandel* (Captain) and one *khalasi* each. The bigger *panai* has one *tandel* and two *khalasis*. Each boat has two oras and two bamboos and one anchor. *Panais* are mostly built at Broach and at Chandod in Baroda district. They are generally owned by the coastal residents.

The Hodi or Navadi.

Hodi or Navadi :—The name originates from the Kannada word *odi* meaning a narrow boat. It is a two-masted double ended fishing boat with starting stern and stern, which can be rowed from either end. It is quite open with regular ribs, lateen sail, oiled hull, with oars fitted and the rudder head passing through the tiller. The bulwork is made of whole planks. The cost of a boat varies from Rs. 700 to Rs. 2,500. These boats are sometimes used in the river Narmada for transporting sundry goods.

The Machhawa.

Machhawa :—The name is derived from the Sanskrit word "Matsya-vah" (fish-carrier). It is a keel bottomed one-mast boat with one triangular or lateen sail. The sail is made of cotton cloth known as *doti* and is woven at Ankleshwar or Bhavnagar. It is a harbour boat somewhat resembling small *padavs* and is generally surmounted by an ornamentally carved stern. Plank bulwarks are fitted so that loaded vessels may sail with gunwales under water. The hull is oiled or tarred and the oars are sometimes fitted. With every *machhawa* there is a sail, a tiller, an anchor, a bailer, a rudder, four to six oars, and thole pins to support them, one anchor rope and three to five bamboos. The ropes used in the crafts are imported from Malabar. There are four holes in the top rails of the vessel called *Jabadala*, in which thole pins are fixed to support the oars for operating them when there is no wind and water is deep. When the water is shallow and when there is no wind, bamboos are used to ply the vessel. The cost of the vessel ranges from Rs. 1,500 to Rs. 10,000. These boats are built in and around Bilimora in Surat.

1 The name 'Odia'is derived from the Kannada word "Odu" meaning to run.

district. They are also built at Broach but the carpenters are natives of Surat district, especially of the villages surrounding Bilimora. Its tonnage is 2 to 10 and length 25 to 50 ft. The crew vary from two to six.

The Padav.

Padav :—The name is derived from the Dravidian word *Pad* meaning open. *Padavs* are very similar to battelas in hull rig and general appearance, but differ in having flat square sterns without counter. They have usually one or two masts with bowsprit and jib. Their hulls are oiled and sometimes they have pointed bows and sterns. The life of a *padav* is about 40 years and its cost varies from Rs. 8,000 to Rs. 20,000. Sails cost from Rs. 250 to Rs. 700. Once a year, in May, when the trading season is over, its sails are washed. They lie up in monsoon. *Padavs* are employed in the coastal trade and they go to Kutch and Saurashtra ports, Bombay, Manori bunder and even to Malbar coast. Tonnage of *Padav* varies from 35 to 80 and length from 50 to 75 feet. The crew vary from five to eleven.

The Bettela.

The Battela :—The name is derived from the Portuguese word *batel,* meaning a boat. It has two masts, high peaked bowsprit, two lateen sails, a jib, high brows, wit circular stem head and ornamental or square sterns. There are no decks, poop or forecastle, but side planking is carried up two feet higher than amidships where coak-ing and mud plastering is used. The battela costs from Rs. 20,000 to Rs. 32,000; in other words, about Rs. 400 per ton load capacity. The sail is made from a woven cloth called *bori* which is made in Bulsar, Ankleshwar and Bhavnagar. 400 lbs. of such cloth is used for a sail. The middle mast costs about Rs 1,000. A *machhawa* carried with it, is used as kentledge to strong winds. It lies up in the monsoon.

The Dhangi or Dingi.

The Dhangi or Dingi:—It is a Baluchi word meaning a log. It has a four feet bulwark and hatch, pointed stems, two masts, two lateen sails, and sometimes in fine weather, square top sails called *masalio* and the hull is partly oiled and partly painted. The tiller passes over the rudder head. Instead of deck, it is furnished with an open hatchwork, consisting of loose fitting into sockets and laid lengthwise and across the vessel. These beams, when the vessel is loading or unloading, can be taken out and put to one side. During the voyage they are again fastened down into their sockets and over them a matting of flat-spilt bamboos is drawn. The boats go exceptionally fast and they ply between all the ports on the west coast of India. The tonnage varies from 60 to 180 and length from 40 to 100 feet. The crew number from eight to twelve.

The Kotia or Gunjo.

Kotia or Gunjo:—These are names given to the type of boats, plying in the coast of Kutch. The natives of Kutch call them *Kotias*, a word derived from *kothar* (granary), and the Arabs call them *Gunjo* which is derived from Gunj, a Persian word having the same meaning. They are two masted and decked vessels with poops and square carved stems. There is no forecastle and the bulwark is low. The hull is painted and varnished. The distinctive bow ornament is

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the parrot beak. They have lateen sails, and small top sails are carried in fine weather. In strong weather or strom, the hatch of the deck is closed and the waves pass over it to the other side without damaging the vessel. The tonnage varies from 80 to 180 and length from 70 to 100 ft. The crew vary from eight to twelve.

The Batel or Butille.

The Batel or Butille:—This is an open boat resembling a small light *baghala* (an Arabian vessel) called Sambuk. This boat should not be confused with a *batela* from which it is quite different in rig and appearance. It has carved stems finished without ornament. Its ribs project above side planking forward and aft, its rudder is completely exposed. It has a mast a lateen sail, but no jib or jib-boom. The top sides are oiled or varnished. These boats are stronger and more seaworthy than the *fatemars, batelas* and *padavs.* The *batels* are sometimes called *Jafarabadi nauries* or *hodies.* The tonnage varies from 40 to 80; length from 60 to 80 ft.; and crew from 5 to 8 men.

DISTPICT BUNGALOWS.

DISTRICT BUNGALOW

For the lodging of officers of various Government departments touring the districts in the course of their duties, District Bungalows, Inspection Bungalows, and Forest Departmen' Rest Houses are maintained by the State. The District Bungalows are under the control of the Collector of the district concerned, the Inspection Bungalows under the Executive Engineer, Public Works Department. of the division concerned; and the Forest Department Rest Houses under the Divisional Forest Officer. Persons other than Government officers may be permitted by the controlling officer to occupy the bungalows on condition that the bungalow shall be vacated within 24 hours if it is required by Government officer entitled to use it. In addition to Government, Municipalities and District Local Boards maintain Travellers' Bungalows, which are meant for the temporary occupation of travellers. Some of the bungalows are fully furnished with furniture like tables, chairs and bed-steads and also with crockery, cutlery, glass lamps and cooking utensils ; most of the rest houses are only partially furnished, i.e. provided with tables, chairs and bed-steads; and in rare cases they are unfurnished. In addition to the caretaker in charge, in a few cases the bungalow his attached to it a sweeper, and in rare cases also a *khansama* (messman or cook) to provide meals for the occupant on payment.

As far as the Broach district is concerned, there is one district bungalow at each of the following places, viz., Hansot, Jambusar and Vagra; and inspection bungalows at Ankleshwar, Broach, Dediapada, Jhagadia, Rajpipla and Samni. The district bungalows are under the control of the Collector of Broach, and the inspection bungalows under that of the Executive Engineer, Broach Division, Broach. There is no travellers' bungalow or forest department rest-house in the district.

Besides the bungalows under the control of the Collector and the Executive Engineer, there are 32 *dharmashalas* (rest houses) maintained by the District Local Board, Broach, in various talukas.

They are listed below:—

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DISTRICT BUNGALOW.

Taluka	Place of location (Where there is one or more, the number is noted in brackets).
Jambusar Taluka	Jambusar (1). Tanksari Bunder (1).
Vagra Taluka	Vagra (2) Pakhajan (1) Ochhan (1) Sarabhan (1).
Amod	Amod (2) Samni (1) Anore (2) Shrikothi (1).
Broach	Broach (1) Nabipur (1) Shuklatirth (1) Shahpura (1).
Ankleshwar	Ankleshwar (1)*
Nandod	Rajpipla (1)* Gardeshwar (1)*
Jhagadia	Jhagadia (1)*
Valia	Valia (1)*
Dediapada	Dediapada (1)*
Hansot Mahal	... Hansot (1)*

* (furnished bungalow).

There are also *dharmashalas* and *choras* in villages and towns where an ordinary traveller can take shelter for a temporary period. The *choras* are under the control of the village *patil* and the *dharmashalas* are often attached to temples or are run by charitable trusts. They are generally situated in places, important from the point of view of trade, industry, fairs and pilgrimage. The exact location of these *dharmashalas* and *choras* is given in the "Director of Villages and Towns" at the end of the Gazetteer.

POST OFFICES.

Post Offices:—At the time of the publication of the old Broach Gazetteer (1877) there were nine post offices located at the following places: Broach. Vagra, Amod, Jambusar, Palej, Ankleshwar, Ilav and Hansot. They formed part of the then Gujarat Postal Division. From all the post offices mentioned above, letters were distributed by delivery peons or by postal runners. The correspondence, for surrounding villages was delivered by rural messengers, who also brought into the station letters posted at the letter boxes placed at most of the villages. The rural messengers carried with them a stock of postage stamps for sale at the villages they visited. Further there was one telegraph office in the Broach town, besides the railway telegraph office. Since 1877 considerable progress has been made in the development of the postal facilities in the district.

In Broach town are located the Head Office and three sub-post offices, two in the town and one near the railway station. Thirteen

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other sub-post offices are located in the following places viz., Amod, Ankleshwar, Ankleshwar (Railway station), Hansot, Ilav, Jambusar, Jhagadia, Nabipur, Palej, Rajpardi, Rajpipla, Vagra and Valia. There are also 131 branch post-offices under the jurisdiction of the following sub-post offices: Amod 4, Ankleshwar 5, Ankleshwar (railway station) 20, Hansot 1, Jambusar 17, Jhagadia 2, Nabipur 12, Palej 12, Rajpardi 12, Rajpipla 5, Vagra 7, Valia 1 and Broach (Head office) 33.

At all post offices including branch offices, postage stamps, post cards, inland letters and envelopes are sold and money orders issued and received. At the head office and sub-post offices, savings bank facilities also exist. All the offices offer parcel facilities as well. Mails are carried in the district by rail, motor buses and, in some cases, by postal runners. Generally each office serves a cluster of surrounding villages. The mails are periodically cleared from and delivered to the surrounding villages by postmen employed in the post offices.

TELEGRAPH OFFICES.

The Post and Telegraph Department also maintains 10 telegraph offices in Broach district. They are all run, combined with the sub-post offices in the places concerned. They are located at Amod, Ankleshwar, Broach, Palej, Hansot, Jambusar, Rajpipla, Vagra, Jhagadia and Valia. In addition, at all railway stations in the district the telegraph facilities at the stations are open to the public.

TELEPHONES.

The posts and Telegraph Department have opened three telephone exchanges at Ankleshwar (town), Broach, and Palej.

Public Call Offices i.e., offices where the public can get telephone connections on payment, are maintained at (1) the railway platform at Broach, (2) Broach Exchange, (3) Palej post Office, (4) Ankleshwar post office and (5) Rajpipla post office, Jambusar and Jhagadia.

There are two types of exchanges in the district (1) Central Battery (C. B.) multiple and (2) Rural Automatic Exchange (R. A. X.). The Broach exchange is C.B. multiple lamp signalling 40 colts system and has a capacity for handling 300 lines. The Ankleshwar and Palej exchanges belong to the C. B. manual system with capacity to handle 100 and 60 lines respectively. The Broach exchange has 249 main working connections with 52 extensions; the Ankleshwar exchange 43 connections and 10 extensions; the Palej exchange 33 connections and 6 extensions. There are three non-exchange lines in Broach district: (i) from Broach to Vagra and (ii) a Departmental line between Fatatalao Fire Brigade Station and Telephone exchange and (iii) from Nathalal Bechardas Bazar to Kapasia Hall. The second is installed for emergency use like fire, failure of batteries etc. The first and third are meant for private persons. There are in all 19 trunk line alignments in the district connected to Baroda exchange. They are as follows :—

Bombay 2, Ahmedabad 2, Baroda 2, Surat 3, Rajpipla 1, Palej 4, Ankleshwar 4, Dabhoi 1.

Transport and Communications.

TELEGRAPH OFFICES.

A brief historical sketch of the working of the telephone exchange in Broach is given below:

In 1921 a Public Call Office was opened in Broach exchange with a loop on Bombay-Ahmedabad trunk line. In 1922, a 50 line local C. B. switch board was installed. At that time there were only nine subscribers. In 1925 the number had increased to 38. Two years later, in 1927, a 100 line C. B. non-multiple switch board was installed. Seven years later, in 1934, another 100 line C. B. non-multiple switch board was installed due to the increase in traffic and demand for more telephone connections from the public. These two old lines were later replaced by new ones. In 1940, one trunk board of T-32 type was installed and in 1953 one more trunk board was added in order to meet the heavy trunk traffic. At present the Broach exchange has very heavy traffic. Due to heavy pressure on trunk lines, it is proposed to install a 3 channel carrier equipment at Broach. There is also a proposal for providing 4 new trunk boards at Broach to meet the heavy trunk traffic of the Broach, Ankleshwar and Palej exchanges.

RAILWAYS.

Railways:—The district is served by the Western Railway, both broad gauge and narrow gauge sections. Railway construction in this part of the State was started by the old Bombay Baroda and Central India Guaranteed Railway Company. The first line to be constructed and thrown open for traffic in the district was the Section between Panoli and Palej on the main line, Bombay-Baroda-Mathura Junction-Delhi route. The main difficulty in constructing this part of the railway line was caused by the broad bed of the Narmada. A railway bridge was constructed at Broach over the river in 1860, which facilitated the opening of the line for traffic in 1861. In spite of frequent repairs the bridge could not withstand recurring floods and hence a new bridge was constructed in 1881 at a total cost of Rs. 45,65,000. The piers were built for a double line traffic but the decking and superstructure was only for a single line, 14 feet wide. As a part of the policy of constructing a double line on the main line (Bombay-Baroda-Mathura Junction-Delhi) the railway company started constructing the double line in 1870, right from the Colaba Station, which then was the starting point, and it was constructed in the district by the end of 1899. The exact date of opening of different sections on the broad gauge main line in the district are as follows:—

Section	*Date of opening.*
Utran to Ankleshwar (only the portion between Panoli and Ankleshwar lies in the district). ...	10th February, 1860.
Narmada to Broach	22nd June, 1860.
Ankleshwar to Narmada	5th December, 1860.
Broach to Baroda (only the portion upto Palej is in the district)	9th January, 1861.

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Section	Date of opening.
Double Line.	
Kim to Ankleshwar (A very small portion is in the district) ...	11th December, 1899
Broach to Miyagam (A very small portion is in the District)	15th October, 1899.
Ankleshwar to Silver Jubilee Bridge	7th February, 1913.
Silver Jubilee Bridge to Broach	20th December, 1935

Besides this double line broad gauge main section, there are six other narrow gauge branch rail routes in the district. They are shown below:—

(1) Ankleshwar-Jhagadia-Rajpipla.

(2) Jhagadia-Netrang.

(3) Broach-Jambusar-Kavi.

(4) Samni-Dahej.

(5) Jambusar-Masar Road.
(part of Chhotaudaipur-Dabhoi-Vishwamitri-Jambusar Section).

The First two lines were owned by the former *Rajpipla State Railway*. The latter three sections were the property of the Baroda Government. The exact dates of opening of these six routes are as shown below:—

(1)	Ankleshwar to Rajpardi	1-7-1897
(2)	Rajpardi to Umalla	19-1-1899
(3)	Umalla to Amletha	1-6-1899
(4)	Amletha to Nandod Station (Rajpipla)	20-7-1899
(5)	Broach-Jambusar	23-11-1914
(6)	Masar Road to Jambusar (only a portion of it is in the district)	1-5-1917
(7)	Nandod Station to Nandod town (Rajpipla)	10-11-1917
(8)	Jambusar-Kavi	1-8-1929
(9)	Samni-Dahej	1-3-1930
(10)	Jhagadia-Netrang	1-3-1932
(11)	Umerjer-Kevdi	1-7-1929

The property vested in the old Bombay-Baroda and Central India Guaranteed Railway Company was purchased by the State on 31st December 1905. The Railway was worked by the reconstituted Bombay Baroda and Central India Railway Company upto 31st December 1941, when the line was brought under *State management*. The four sections of the Gaekwar's Baroda State Railway in the district were worked by the B. B. & C. I. Company upto the 30th September 1921 on which date the working was taken over by the

Baroda Durbar. As a result of the merger of the Rajpipla and Baroda States in the then Bombay Province, the Rajpipla State Railway and the Gaekwar's Baroda State Railway came to vest in the Government of India with effect from 1st August 1949, and were merged with the B. B. & C. I. Railway. As a result of the regrouping of the Indian Railways in 1952, the B. B. & C. I. Railway and a few other lines added to it (as a result of the merger of States) were grouped together under the name of Westrn Railway.

At present (1954) the whole of Broach district is served by about 173 miles and 4 furlongs of railway with a total of 47 stations. Of this mileage about 29½ miles is a double line broad gauge section and the remaining mileage is a narrow gauge rail line.

Bombay-Delhi line.

Bombay Central-Surat-Baroda-Mathura-Delhi main line:—This route emanates from Bombay Central, and runs north up to Mathuran in Kim and Kosamba in the Surat district and then enters the Southern part of the Broach district territory about one mile south of Panoli Station, which lies at miles 188 from Bombay Central. From Panoli the line runs north till it reaches Ankleshwar, a junction station, and from here the line runs further north (with a slight inclination to the east) and taking a turn north-west for about 4 miles crosses the Silver Jubilee Bridge over the Narmada near Broach and reaches Broach Station at miles 200. When approaching the bridge one gets a fine view of the Broach City, which lies on the bed of the Narmada, and the broad bed of the river lends an enchanting beauty to the city. From here the railway runs north with a slight bent to the east upto Palej, the last station on the line in the district boundary about half a mile after Palej and runs on to Baroda.

The country, on either side of he entire track in the district, is rich black soil, which is highly suitable for the growth of various grades of fine cotton. The line is laid wih 82 lb. bull-headed and 90 lb. flat footed rails on Deodar, Jarrah, Sal, oval pot and steel trough sleepers. It is ballasted with broken stone, gravel and shingle. The line is fenced throughout.

In its course from south to north through the district this line crosses the talukas of Ankleshwar and Broach and the following stations mark its route.

(The mileage given in brackets is from Bombay Central.)

Panoli	(Miles 188)
Ankleshwar	(Miles 194)
Broach	(Miles 200)
Chavaj	(Miles 203)
Nabipur	(Miles 207)
Varedia	(Miles 212)
Palej	(Miles 216)

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Ankleshwar-Jhagadia-Rajpipla Route

The principal stations on this line in the district are Broach and Ankleshwar. They are also junction stations.

Ankleshwar — Jhagadia — Rajpipla route:—This is a narrow gauge line (2′ 6″ gauge) covering in all a distance of 41 miles. The line starts from Ankleshwar and runs east till it reaches Dadhal station four miles from Ankleshwar and then runs north-east and crossing the Kaveri river, after Boridra, reaches Jhagadia station. The line further continues north-east east up to Rajpipla station, crossing the Karjan river near Rajpipla. At Jhagadia there is a railway siding from the station to the Narmada river, a distance of three miles, through which bamboos etc. are transported to Saurashtra. Rajpipla serves the Rajpipla forest area from which timber, rafters, bamboos, charcoal etc. are transported to their destinations in Gujart *via* Ankleshwar.

The line is laid with 41¼ lb. flat footed steel and iron rails on half-round Jungle teak sal and Australian sleepers. The line is ballasted chiefly with coarse river sand.

Following are the stations on this route :—

Ankleshwar	(0 mile);
Dadhal Inam	(Miles 4);
Boridra	(Miles 7);
Gumandes	(Miles 10);
Jhagadia	(Miles 14);
Rajpardi	(Miles 19);
Umalla	(Miles 24);
Juna Rajuvadia	(Miles 28);
Amletha	(Miles 32);
and Rajpipla	(Miles 41).

Jhagadia-Netrang route.

Jhagadia — Netrang route:—This is a narrow gauge (2′ and 6″ gauge) line covering in all a distance of 17 miles. The line starts from the Junction station, Jhagadia, and runs south-east till it reaches Netrang. The railway crosses the Kaveri once and the Amravati twice. Netrang serves as an exporting centre for the products of the nearby forests.

In its course from Jhagadia to Netrang the line passes through the Jhagadia taluka and Valia peta. The following stations mark its route.

Jhagadia	(Mile 0);
Damli	(Miles 4);
Padwania	(Miles 7);
Zazpore	(Miles 9);
Goralia	(Miles 11);
Gambhipura	(Miles 13); and
Netrang	(Miles 17).

RAILWAYS.

Jhagadia-Netrang Route.

All stations on this section except the starting and terminal stations, are flag stations.

The above mentioned two narrow gauge rail lines lie to the south of the Narmada and in the eastern parts of the district. In fact, the Ankleshwar — Jhagadia — Rajpipla rail line lies almost parallel to the Narmada river. The other three narrow gauge sections lie in the western part of the district and to the north of the Narmada.

Broach-Jambusar-Kavi Section.

Broach — Jambusar — Kavi section :—The line starts from Broach Station and runs north-west. The next station, Vejalpore, is about ¾ mile away from Broach City (but two miles from Broach Station). Broach-Vejalpur line serves as a line for local traffic in Broach city. The line continues in the same direction and reaches Samni at mile 14¾. Samni is a Junction wherefrom there is a narrow-gauge line to Dahej. From Samni the lines runs north-west and reaches the Jambusar junctton station *via* Amod, a taluka place. Jambusar is an important Junction station connecting Broach-Jambusar Kavi and Jambusar-Vishwamitri sections. The line takes a more westerly direction from Jambusar and reaches Kavi, a small bunder connected with the gulf of Cambay. There is a railway siding from the station to the bunder. The route in all covers 45¾ miles.

The railway crosses the Dadhar over a bridge a few miles after Amod.

In its course from Broach to Kavi, the line passes through the talukas and Petas of Broach, Vagra, Amod and Jambusar. The following stations lie on the route :—

Broach City	(M. 0)	Samni	(M. 14¾)	Tankari Rd.	(31 M)
Vejalpore	(M. 2)	Tancha	(M. 19)	Koteshwar	(M. 34½)
Kantharia	(M. 3¼)	Nahiar	(M. 21½)	Tundaj	(M. 37½)
Tham	(M. 5)	Amod	(M. 24)	Kura	(M. 39½)
Tralsamadh	(M. 7¾)	Magnad	(M. 27¾)	Kangam	(M. 42½)
Dayadra	(M. 10)	Jambusar	(M. 29½)	Kavi	(M. 45¾)
Vachhnad	(M. 12½)	Jambusar City	(M. 30¼)		

The line is laid with secondhand 41½ flat footed steel rails partly on sal and partly on half round jungle wood sleepers. It is ballasted with sand.

Samni-Dehej Section.

Samni—Dehej Section:—The route starts from Samni and runs South-West till it reaches Dahej. The only important station on the route is Vagra a taluka place. Dahej is situated about three miles from the Arbian sea. It is an undeveloped port and only country crafts. ply there. The route in all covers 24½ miles. In its course (Samni to Dehej) the railwav passes through Amod peta and Vagra taluka. Its course is marked hy the following stations.

Samni	(M. 0)	Pakhajan	(M. 13½)
Vagra	(M. 5)	Sambhoti	(M. 18½)
Vahial	(M. 9¾)	Dehej	(M. 24½)

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Jambusar - Vishwamitri - Dabhoi - Chota Udaipur Section:— This is a long narrow gauge railway section of the Western Railway but only a very small portion of the line lies in the district. Jambusar is the terminal point on this north-east section. After passing through Jambusar Road and Ankhi Stations, the railway runs to Masor Road Station in Baroda district. The line in all covers about 6 miles in the district. Ankhi is only a flag station.

Umerjer-Kevdi Route.

Umrejer — Kevdi route (part of Kosamba-Umerpara Section:— This is another narrow gauge rail route passing through the district. Starting from Kosamba in Surat district the line runs east till it reaches the flag station Umerjer after Zankvav. The line further runs in the same direction in Surat district for a very little distance and then enters the southern portion of Broach district and runs up to Kevdi station, a place on the border of Broach and Surat districts, in Dediapada taluka. After this station the railway line leaves the district boundary and re-enters Surat district and runs south for 2¼ miles and reaches Umerpara, the terminal station. The route in all covers about seven miles in Broach district. Kevdi is the only station on the route in the district.

The following statement gives the number of passengers booked (local and foreign outward) and the tonnage of goods hauled from each station in the district during the year 1952-53:—

STATISTICS OF RAILWAY TRAFFIC OPERATIONS IN BROACH DISTRICT (1952--53)

Section	*Name of the Station.*	*No. of passengers booked (outward and foreign).*	*Tonnage of goods hauled (outward*
Panoli-Palej Section (Broad Gauge)	1. Panoli ..	57,688	539
	2. Ankleshwar ...	3,83,693	9,869
	3. Broach ...	7,08,123	30,292
	4. Chavaj ...	31,456	165
	5. Nabipur ...	1,32,930	2,044
	6. Varedia ...	1,01,894	3,059
	7. Palej ...	2,09,423	9,893
	Total for the section ...	16,25,207	55,861
Broach-Jambusar Kavi Section (Broach exclusive)	8. Vejalpore ..	74,222	1,387
	9. Kantharia ...	15,728	32
	10. Tham ...	7,655	1
	11. Tralsmadl ...	31,524	694
	12. Dayadra ..	7,265	-

Section	Name of the Station.	No. of passengers booked (outward and foreign).	Tonnage of goods hauled (outward)
Broach-Jambusar-Kavi Section (Broach exclusive)	13. Vachnad ...	11,182	—
	14. Samni ...	95,289	2,658
	15. Tancha ...	5,109	—
	16. Nahiar ...	10,172	—
	17. Amod ...	1,14,818	2,801
	18. Magnad ...	9,879	6
	19. Jambusar ...	1,48,325	2,381
	20. Tankari Road(a) ...	—	2,456
	21. Koteshwar ...	11,691	—
	22. Tundaj ...	10,807	—
	23. Kora ...	64,161	597
	24. Kangam ...	5,835	—
	25. Kavi ...	37,653	849
	Total for the section ...	6,61,309	13,865
Ankleshwar-Jhagadia Rajpipla Section (Ankleshwar exclusive).	26. Dadhal-Inam ...	37,079	—
	27. Boridra ...	25,998	3
	28. Gumander ...	35,107	2
	29. Thagadia (b) ...	1,76,709	5,788
	30. Rajpardi ...	99,594	3,245
	31. Umalla ...	52,035	817
	32. Juna Rajuvadia ...	43,536	1,155
	33. Amletha ...	31,819	1,088
	34. Rajpipla ...	1,30,724	15,205
	Total for the section ...	6,32,601	27,303
Jhagadia-Netrang Section (Thagadia exclusive)	35. Damlai ...	(b)	24
	36. Padnania ...		1
	37. Zazpore ...		209
	38. Goralia ...		1
	39. Gambhipura ...		1,242
	40. Netrang ...	29,939	8,703
	Total for the section ...	29,939	10,180

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Section	Name of the Station.	No. of passengers booked (outward and foreign).	Tonnage of goods hauled (outward)
Samni-Dahej Section (Samni exclusive)	41. Vagra ...	(c)	1 327
	42. Vahial ...	57,240	—
	43. Pakhajan ...	13,455	67
	44. Sambheti ...	35,146	152
	45. Dehej ...	32,278	628
	Total for the section ...	1,38,119	2,174
Jambusar to Ankhi (exclusive Jambusar)	46. Ankhi ...	2,125	—
	Total for the section ...	2,125	—
Umerjer to Kevdi Section.	47. Kevdi ...	18,048	7,898
	Grand Total .	31,07,348	1,17,281

A glance at the above statement reveals certain interesting facts. During 1952-53, 31,07,348 out-ward passengers and 1,17,281 tons of goods were booked from all the stations in the district. Of these about 52 per cent. of the passengers and 51% of the goods were booked from the seven stations on the double line broad gauge section in the district. Although the broad gauge section covers about 29½ miles, it carries, a major portion of both the passengers and goods traffic. In fact a major portion of the export of commodities outside the district is borne by this section of the rail line. The Broach Station handles the largest number of out-ward passengers and goods traffic. The following statement gives in the order of their importance the names of stations where more than a lakh of out-ward passengers and 5,000 tons of goods were booked during the year 1952-53.

Passengers traffic	*Goods traffic.*
Broach	Broach
Ankleshwar	Rajpipla
Palej	Palej
Jhagadia	Ankleshwar
Jambusar	Netrang
Rajpipla	Jhagadia
Nabipur	Kevdi
Amod	
Varedia.	

The following table shows the tonnage of a few selected commodities booked from the important stations in the district during the year 1952-53.

Tonnage of certain commodities booked from important Railway Stations.

(Figures in tons).

Name of the Station.	Commodities.				
	Pressed Raw Cotton	Timber	Tobacco	Gram and Pulse	Oilseeds.
1. Broach ...	1470	176	28	1045	2442
2. Ankleshwar ...	1689	178	24	482	1231
3. Jhagadia .	2673	6	1	155	1588
4. Jambusar ...	—	—	—	29	90
5. Palej ...	3211	13	—	172	4580
6. Rajpipla ...	1492	3278	3	117	1609
7. Netrang ...	1006	1333	—	1	1156
8. Vagra ...	371	—	12	27	367
9. Amod ..	1305	327	—	6	518

Palej station handles the largest tonnage of cotton and oil-seeds; Rajpipla, timber; and Broach, gram and pulses.

The Petas of Sagbara and Hansot and Dediapada taluka are not directly served by any of the railway lines. Dediapada taluka and Sagbara peta are forest areas with little traffic. The following taluka and peta headquarters are directly connected with railway: Amod, Ankleshwar, Broach, Jambusar, Jhagadia, Nandod (Rajpipla) and Vagra. The forest products of Dediapada and Sagbara are handled by the Rajpipla and Netrang Stations.

Almost all stations, except a few small stations and also flag stations, are provided with platforms, station buildings, and staff quarters. The stations at Broach Ankleshwar, Rajpipla, Jhagadia and Jambusar provide various other facilities.

Broach:—Broach is an important railway station on the main Bombay-Baroda-Delhi broad gauge route. It is also a junction station with the narrow gauge line which runs from Broach to Jambusar and Kavi and at Jambusar it connects the narrow gauge line running to Dabhoi and Chhota Udaipur. The station has two fully covered passenger platforms. The main station building is located on the "Down" main line and houses the offices of the Station Master, Deputy Station Master, Booking Office, Ladies and Gentlement's waiting rooms with bath rooms for higher class passengers. There is also a big waiting hall for third class passengers. Two Tea Stalls are provided on the "Down" platform and one on the "Up" platform. There is also a goods shed and transhipment shed and a spacious luggage and parcel office. The station and the goods shed are served by a well-maintained road.

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Ankleshwar:—It is another important station on the main Bombay-Baroda-Delhi broad gauge line. It is also a junction station with the narrow gauge line which connects Ankleshwar with Rajpipla. The Station building, located on the "Down" platform, houses the offices of the Station Master, Deputy Station Master, waiting room for upper class passengers and a waiting hall for third class passengers. There is a parcel and luggage office and a large goods shed with a good approach road. There is a Runing Shed where engines of the two narrow gauge sections, namely Ankleshwar-Rajpipla and Jhagadia-Netrang, are housed and maintained. Number of engines homes in this Runing Shed is 4 and the number of staff working in the shed is 64. There is also a Train Examining Depot where coaching and goods stock of the above mentioned two narrow gauge sections are attended. The number of staff working in the Depot is 37. The station is connected with a good approach road.

Rajpipla:—This is a terminal station on the narrow gauge line between Ankleshwar and Rajpipla. Besides the Station Master's Office and booking office, there is a waiting room for upper class passengers and a waiting hall for third class passengers. There is also a goods shed.

Jhagadia:—Jhagadia is about 13 miles from Ankleshwar on the narrow gauge line from Ankleshwar to Rajpipla. A narrow gauge branch line takes off from here for Netrang. In the station building there is a waiting hall for third class passengers. A goods platform and ramp for loading and unloading goods is available. The river Narmada is nearby and there is a siding from the station to the river, where goods are loaded during the season.

Jambusar:—It is a junction station 30 miles from Broach on the narrow gauge line that runs from Broach to Kavi. There is a narrow gauge line branching off from here to Dabhoi and Chhota Udaipur. There is a station building housing the Station Master's office, and booking office, waiting rooms with bathrooms for upper class passengers and a big waiting hall with tea stall for third class passengers. There is also a goods shed.

The following is an account of the Silver Jubilee Bridge, a railway bridge over the Narmada near Broach.

THE SILVER JUBILEE BRIDGE.

The Silver Jubilee Bridge.

A railway bridge over the Narmada known as the Narmada Viaduct, was originally constructed in 1860. It consisted of 61 spans, resting on piers of three vertical columns with raking struts "up" and "down" stream. The hight of the bridge from foundation or screw to rail in mid-channel, was 84 feet. In July 1864, a flood, rising within 21 feet of rail level, carried away six spans in the deep-water channel. In order to prevent the occurence of such events oertain inprovement were suggested. These improvements

were being gradually carried out, but were not completed when, in August 1868, a flood, rising to within 18 feet of rail level, carried away four spans. After the subsidence of this flood, it was found that the piers had been carried away from the effects of under-scour, their screws not being bedded in the clay. It was therefore decided that, in addition to other improvement, it would be necessary to screw the columns of the piers in every case well into the clay. These alterations were carried out before the rainy season of 1871. The Bridge, as completed in 1871, consisted of 68 spans with a maximum height of 120 feet from screw to rail level, of which 60 feet were sunk below the bed of the river. The cost of the bridge upto 1871 was Rs. 46,93,400. The bridge, although severely tested by several high floods, stood well till the rainy season of 1876. The flood water of the 6th September 1876, raising suddenly to the unprecedented height of 35 feet above high water mark, or within 13 ft. 6 inches of rail level, washed away 26 spans, or upwards of 1600 feet of the southern portion of the bridge. Across this gap a fair weather bridge, 1578 feet long, was thrown. Across this bridge could not stand the floods of the rainy season, a high level bridge, on the same design as the old one, completed, at a cost of about Rs. 1,50,000, was opened for traffic on the 27th April 1877. But this reconstruction was only a temporary measure. In 1881, an entirely new bridge consisting of 25 spans of wrought iron girders of 187 feet each was erected a little farther to the east of the original bridge. The cost of the bridge was Rs. 45,65,000. The piers were built for a double lane traffic but the decking and super-structure was only for a single lane, 14 ft. wide. Seventeen years after its opening, in 1898, serious trouble was experienced again due to scour. The groyne protecting the south abutment was then built but since then the danger from a pothole and under-scour had always remained a menace and this consideration had an important bearing on the design and the site of the new bridge. In 1925-26 stress measurements were made on the members of certain trusses of the new bridge and it was found that overstress existed at a number of points under normal loads. Then running corrosion had also set in in a number of points, affected by the exhaust fumes from locomotive chimneys. With the piers threatened by underscour and the girders weak there was little option but to construct a new bridge. In 1926, it was decided to replace the second wrought iron bridge by a third bridge of mild steel girders. The most suitable alignment for the new bridge known as the "Silver Jubilee Bridge" was determined in 1931 and is about 1000 feet down stream of the south abutment and about 100 feet down stream from the north abutment of the second bridge. The second bridge had only one track on it and as the line from Bombay to Baroda consisted of double track, train movements were considerably restricted on this busy section by having to work "up" and "down" trains on the same track over the bridge. It was, therefore, decided to construct a double track on the new bridge conforming to modern standards of loading, which would permit unrestricted train speed

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and greatly facilitate train movements, by removing the "bottle-neck" that existed in the double line section of the then B. B. & C. I. Railway from Bombay to Baroda. The construction of the "Silver Jubilee Bridge" was commenced in 1933 and was completed in 1935. It is almost entirely of Indian material, fabrication and construction. It is 4627 feet and 10¾ inches between centres of abutments and consists of 15 spans of mild steel girders of 287 feet each with one span of 247 feet and an approach span of more than 60 feet. The piers consist of twin mast concrete cylinders 22 feet in diameter. The foundations of the piers have remarkably great depths reaching upto 155 feet below rail level and 66 feet below the bed level of the river. The total cost of the new bridge was about Rs. 72 lakhs. In the dry season the maximum depth of the water at low tide in the river is 20 feet and at high tide it is about 30 feet.

After the construction of this new bridge the old bridge, built in 1881, was given over to the Public Works Department of the Bombay Government and was converted into a road bridge in the year 1943.

Radio Communication.

Radio Communication.

The use of radio receiving sets in the district began in the early thirties of this century, as in other place of India. Ever since, this part of Bombay state has made steady progress in this respect. By May 1957, 3,316 domastic radio licences had been issued in Broach district. In 1957 (30th June) there were 106 community receivers (6 in Urban areas; Broach 3, Ankleshwar 1, Jambusar 1, Rajpipla 1, and the rest in rural areas). They are installed and maintained by the Rural Broadcasting Section of the Directorate of Publicity.

Ports.

Ports. Broach.

Broach (21° 42′ N, 73° 2′ E.). The port of Broach is situated on the bank of the Narmada river estuary about 30 miles inside from the Lohara point where the river meets the Gulf of Cambay. In ancient and medieval times Broach was one of the important ports in Western India, but its trade has gradually declined. Even in the heyday of Broach's glory, the shoals at the mouth of the Narmada had made the river difficult to navigate. According to the *Periplus of the Erythrean Sea* (A. D. 75), "even when the passage into the Gulf is secured, the mouth of the Barugaza river is not easy to hit; for the coast is low, and there are no certain marks to be seen. Neither, if it is discovered, is it easy to enter, from the shoals that are at the mouth. For this reason pilots are appointed by goverment with attendants in large boats called *trappaga* and *kotumba:* these vessels advance as far as Surastrene (Kathiawar), and wait there to pilot the trade up to Barugaza. Their service at the entrance of the Gulf of Cambay is to bring round the ship's head, and keep her clear of the shoals. This they do by means

of the many hands they have on board, and by taking the vessel in tow from station to station, which are all known and marked. They move with the beginning of the tide, and anchor as soon as it is spent, at certain berths that are called basins, and these basins still retain water after the tide is out all the way to Barugaza." Fryer (1673-81), who crossed the river at Broach, states that skilful pilots were required to direct good lusty vessels up to the city walls. But those were days of small ships and Broach served as a good centre of entrepot trade between its hinterland and overseas centres and its trade flourished. Even in the sixteenth and seventeenth centuries its importance as a centre of trade attracted settlements of Dutch and English merchants. Vessels of 100, 200 or 300 tons burden went from Broach even as far as Java and Sumatra in the east and Aden and the ports of the Red sea to the west. Later on the foreign trade of Gujarat centred more and more in Surat and from Surat it was transferred to Bombay. By the beginning of the nineteenth century, even the cotton which used to be exported from Broach to China and Bengal was sent through Surat and Bombay, and by 1815 the Broach port had ceased to have any foreign trade.

When Bishop Heber visited Broach (1825), he noticed that the Narmada was very shallow, and that no vessels larger than moderately sized lighters could come beyond the bar. The condition of the Narmada estuary in 1870 is set out in a memorandum by Mr. W. Sowerby, at that time Local Fund Engineer, Surat and Broach. The following are extracts from this memorandum * :—

"The Nurbudda is one of the eight rivers which empty themselves into the Gulf of Cambay. The length of it, including branches and winding is about 750 miles, and the drainage area which it passes through, is 37,500 square miles.

"The annual floods bring down a great quantity of silt in suspension, most of this is carried away out to sea by the tides and deposited along the Western Coast of India; but there is a partial deposit along the lower course of the river, as shown by the quantity of sand that has been gradually warped up in this way, and which is at present only occasionally covered during extraordinary high tides.

"But at the same time this silting up takes place, there is another process going on, and it is this, namely, as the silting up extends, the channels of the river are narrowed, and consequently, by the greater scour they are deepened, and so these *bets* or Islands which are seen on the south side of the Nurbudda, appear to have risen up out of the bed of the river, above the height of the usual tidal rise.

*Taken from Bombay Minor Ports Committee Reports, 1939, (p.p. 72-75).

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"There are other influences at work also which may require explanation, for when the channel of the river is narrowed, if the same quantity of tidal water came up the Gulf, then it would still overflow the *bets* or Islands but the gradually narrowing of the entrance to the Gulf also checks this, and drives the water in some other direction.

* * * * * *

"The effect then of this gradual silting up as regards the Nurbudda has been to deepen the mid channel, giving it a greater capacity for navigable purposes, though, as has been stated, the actual tidal flow has been diminished.

* * * * * *

"The extreme width of the Nurbudda estuary is about 13¾ miles (nautical) while at 16 miles up the river above Mehgam, it is only about 1½ miles wide. The estuary thus coveres an area of 120 square miles more or less, and this forms an immense bell-shaped mouth of the river.

"The great portion of this large area is even at present quite dry except at very extraordinary and unusual tides, perhaps once or twice in 12 months, and much of it has even then only a film of water over it; this is sufficient, however, to render it unfit for cultivation.

"There are two channels across this estuary — one to the south towards Hansot, which is dry at low water The other channel to the north past Ambehata (Dahej) is never dry and this is the true sailing channel.

"There is no bar properly speaking at the mouth of this northern channel, nor does the Admiralty Chart by Captain Ethersey made 25 years ago (1845) show any bar, there are three sand patches shown on that chart, with a clear channel of fully 1½ miles wide.

"The fact of a long sand spit running from the land on the north to the southward for a distance of from 4 to 4½ miles, has given rise to this idea of a bar at the mouth of the river which does not exist.

* * * * * *

"The width of the channel at the entrance is more than a mile.

* * * * * *

"Soundings show very clearly and decidedly that the channel of the river has not deteriorated, but has actually been much improved from natural causes only, and this improvement continues up to within about 4 miles of Broach, beyond which point it has been deteriorated, probably by the construction of the Railway Bridge, which, though offering but comparatively little obstruction a scour has doubtless been caused by it and resulted in the throwing up of formidable sand banks at various points opposite to and about 1½ miles below

Broach. There is still a fair channel on the south side of the river, navigable for small craft at high tide but large vessels cannot pass this barrier.

"The course of the river Narbudda exemplifies the theory of oscillation very beautifully. Commencing at Broach the deepest channel is on the north side of the river, below this it passes across to the southern side and runs for some distance along by a high bank, until there is a creek or inlet opening to the south; it is opposite to this creek where the water is shoal, and beyond this large vessels cannot pass. It then oscillates to the opposite or north bank to a point about 4½ miles below Broach near a village called Dusa or Dusara. Here the river is divided into two channels. The main or north channel is greatly confined by a Bet or Island (the south channel being comparatively shallow or dry) the river continues along the side of this high bank for about five miles having a gentle curve to the southward. The depths at low water springs are from 18 to 25 feet. These depths are close in shore, within about 50 feet of it, and along this reach an immense number of vessels might be moored to load and discharge cargo Well water borne, if drawing 15 or 16 feet of water. These soundings continue to a point opposite a place called Sumnee on the northern bank, and then the channel oscillates again to the opposite side, where there is an inlet or creek leading past the Hansote Bunder; this is called the southern channel, but it is dry at low water.

"From opposite Samni, where there is a shoal running out from the northern bank, the channel again crosses towards Mehgaum where there is another creek called the Bhookee or Badre creek. Owing to the Hansote channel there is comparatively shoal water here, but never less than five feet, in the channel where a buoy has been placed. There is a tidal rise of from 6 feet 6 inches at dead neaps to 17 feet 6 inches at springs, giving an average of 18 feet of water and 24 feet at spring tides, sufficient to allow vessels drawing 15 feet of water passing up except at extreme neap tides continue about four to six tides (three days).

"The river continues along the northern side with a fair channel past Kuladrah to a point near Vengnee where there is a high and well defined bank, and where there is deep water and a tidal rise of from 8 feet to 4 inches extreme neaps to 19 feet 6 inches at the spring tide, the extreme neaps being very exceptional and lasting only 4 to 6 tides (3 days).

"From Vengnee the river oscillates across to the southern side, the width there being 1½ miles; on the south is the Karselea Bet, with a well defined high bank, and deep water all along the bank, the channel being quite clear. There is shoal water however near the first point of the Bet where a buoy has been placed in eight feet of water (dead low water); but the great tidal rise renders this point

no obstruction whatever to the navigation. This channel continues along the south side till it is opposite to a place called Soovale when it again oscillates to the north striking the bank about two miles from Ambheta. There is here again a slight shoaling, but forming no obstruction to the navigation, the tides being very great.

"Off Ambheta there is from 24 feet of water at dead low water spring so that the largest vessels might lie here safely at all times of the tide well water borne.

"There has been a prevailing idea that the channel of the river changes greatly every year. On comparing its present condition, however, with the Admiralty Chart published in 1845, so far as it goes, which is up to a point about Mehgaum, the channel has not materially changed, unless it be for the better during the last 25 years.

"But exceptions must be made for the part near the entrance where there is a very decided change, but here it is also, as has been shown, much for the better.

"There is no doubt that minor changes annually take place in the river during the moonsons, but it is probable these changes are only in the upper part of it, near to and beyond Broach, for the tremendous scour of the tide, must very soon remove any obstructions within its influence.

"The river continues its oscillatory character right down to its embouchure, for it crosses to the south from beyond Ambheta, and makes a final attempt again to bend to the opposite side when it falls into the sea.

* * * * * *

"During the monsoon season the commotion at the entrance of the river is very great, especially at the burst, and also at the time when the river is flooded with freshes. The waves at the mouth of the river then rise to a great height only equalled at places such as off the L. Agullas, Cape Guardefui, and similarly exposed points. At such a time none but large well built sea-going vessels are fit to enter the river and even they would be better away. Once inside the channel however near the first inner buoy 1½ to 2 miles up the river they would be comparatively safe, except during heavy gales and even then they would be safe off Ambheta.

"The navigation of the Narbudda at all other seasons of the year is perfectly easy to any ordinary vessel with a skilful commander. Steamers would generally be able to make the deep reach 4 or 5 miles below Broach in one tide and always in two without any difficulty. Sailing vessels might require two or even three tides to reach the same point.

"The navigation of the river must always however be more or less tidal, that is to say advantage must be taken of the tides and

long narrow shallow vessels could never make any regular trips irrespective of the tides, because not answering their helms very quickly, they are liable to "snag" or run a ground on the sand banks below Broach and near Mehgaum, not for want of a sufficient depth of water but because the sand banks more or less overlap each other and vessels must answer their helms pretty sharply to round the points. Sailing vessels also in tacking are liable to run aground for the same reason. Well built vessels, however, running aground would sustain no serious damage as the bottom is beautifully even, as shown by the soundings and is chiefly fine sand with occasionally a soft mud near the sides.

"A skilful captain would always know where to lie safely for the return tide in case he was too late to go up with one flood. The first point being the reach off Ambheta, the second off Vengnee and the last above Sumnee; in any of these places there is good anchorage in deep water at all times of the tide for vessels of 15 to 18 feet draught of water.

The "throwing up of considerable sand banks at various points ing up the creeks or channels on the southern side just below Broach, and the one leading up to Hansot, but any works of this kind must be of a very gradual character allowing nature to perform as much of the operations as possible merely enticing the channel to keep a northern course."

The "throwing up of considerable sand banks at various points opposite to and about 1½ miles below Broach" is stated to have been caused by the construction of the railway bridge known as the Narmada Viaduct, in 1860. As this bridge suffered damages in the heavy floods of 1876, in 1881 a second bridge was erected a little farther to its east. As scouring continued, it was lessened by the railway authorities by the addition of three spans at the southern end of the bridge in about the year 1883. As the set at the southern bank and approach of the bridge, however, continued though with a lessened force, in 1903 the railway authorities sought to remedy it by the addition of training works above the bridge (known as the Bell bund). With a view to effecting improvement at Kukerwada, in 1904 a groyne was constructed by the Local Government on the southern bank with the object of diverting the current on to the shoal in the middle. This groyne was partly washed away by the next flood (1905). After a lapse of four years the question of improving the navigable capacity of the Narmada below Broach was again taken up. Mr. Ali Akbar, Superintending Engineer, Northern Division, in a note dated 1st July, 1911, observed : "At present there are three shoals, viz., at Kukervada, Samni, and Mehegam, which principally obstruct navigation, the worst being opposite Kukervada". A survey carried out in 1910 by the Surveyor in charge, Marine Survey of India, showed : "The stream at ebb and flow gains a strength of between four and five knots an hour inside the river and five to six

knots outside, and the rise and fall ranges from 27 feet at the entrance to about 12 ft. up at Broach : this strong current and large rise and fall greatly reduce any success that might result from dredging". This opinion was circulated by the Government to all concerned. An investigation was made by Government's engineers into the effect of the Bell bund at the railway bridge on the navigation of the stream downstream of the bridge. It was found that the Bell bund had been instrumental in deflecting the main current towards the north or the town bank and the axis of the stream downstream had to adjust itself to the altered conditions. This necessitated changes in the bends of the stream up to about 15 miles below the bridge, since the established regime of the stream was distributed. It, however, was not proved that the Bell bund had been the cause of the formation of obstacles below it or increased appreciably the difficulty of navigation in the Narmada. It had certainly forced the river to readjust some of its bars or obstacles, but whether to the detriment or advantage of navigation was a moot point.

It was, therefore, decided by Government that the volume of trade of the port did not justify any larger expenditure.

Thus, before the appointment of the Bombay Minor Ports Committee in 1937, the position as regards Broach was that the question of improving of navigation in the Narmada had fairly exhaustively been investigated in the past and given up as (1) the experts were all of the opinion that the dredging of the channel was out of quesion, (2) no cheap measures within the means of the port, and likely to be effective, were possible, and (3) the port authorities had no funds to finance any heroic measures, nor did trade justify such an outlay. Before the Bombay Minor Ports Committee 1938, the following demands were made . (1) resurvy of the river and removal of silt, (2) buoying of the navigable channel, (3) construction of a godown near the bunder road for storing goods brought for shipment or for removal into the town, (4) construction of a road from the bunder to the railway station.

In view of the fact that the cost of dredging the river would be enormous, the Committee felt that unless Government were prepared to remove the silt at any cost, resurvey was not necessary. It was represented to the Committee that owing to the bottom of the Narmada being practically a mass of quicksands, the constantly shifting nature of the channel and the strong current in places where the buoys had to be placed would drag moorings and instead of the buoys being an assistance to navigation would be a source of constant anxiety. The Committee agreed. They recommended that an open high level shed, covered at the top, with a gradual slope from road level to the base of the shed should be constructed near Becharji Ovara. While the committee agreed that the widening of the existing road from the bunder to the railway station would improve

the sanitation of Broach, it was not essentially necessary for the development of the port.

The question of improvement again came up for consideration very recently before the Sub-Committee of the Landing and Wharfage Fees Fund Committee on improvements at minor ports in the State of Bombay appointed in October 1953. The Sub-Committee made the following specific recommendations : (1) From the point of view of cargo traffic and potential movement of goods, Broach is of outstanding importance. The main cause of decline in trade at this port is the sand bars in the river. Desilting and removal of bars is, therefore, an urgent necessity. When dredgers are provided, the dredging must be taken up immediately. (2) The quay wall, miscalled an approach road, should be repaired immediately. (3) At the end of the jetty opposite the Custom House the jetty may be extended to deep water.

At present vessels of 100 tons can cross the entrance and go from the mouth to the Custom House at Broach and vessels of 50 tons burthen can go up to Jagadir about seven miles in the east on high tide. At low tide vessels up to 80 tons and 30 tons can go up to the Custom House and Jagadir respectively. River navigation is restricted to cargo traffic and can be negotiated by vessels drawing more than 6 ft. draught during spring tide. At present ships anchor off the Custom House at Furza Ghat where the depth of water is about 20 feet at high tide with sloping bottom.

There is a Light House at Lohara at the mouth of the Narmada river. There are no arrangements to give storm signals. As regards other facilities there is a tow-wall and the District Local Board, Broach, maintains a wooden jetty for the use of ferry passengers. Besides these there is the approach road. This approach road is actually a quay wall where goods are loaded and unloaded and is miscalled an approach road.

For the development of the port, the work of constructing an R.C.C. jetty has been taken in hand by the Marine Division, Public Works Department, Bombay, at an approximate cost of Rs. 4,00,000. The work is likely to be completed in 1957. For storage facilities, a transit shed 30′×30′ is separately provided. The work consits of a main jetty 360′×40′ and the approach part 80′×40′ forming a 'T' shape. On the front side, provision is made for staircases to facilitate loading and unloading of cargo. The jetty can accommodate about six vessels of 50-60 tonnage each at a time. To provide extra facilities, the Bunder Road along the jetty is being improved under the supervision of the Broach Public Works Department.

The port is administered by the Collector, Central Excise, Baroda. An Inspector, Central Exrise, Customs, is stationed at the Broach port with the necessary staff for administration. The Bombay Minor Ports Fund, which is maintained for the amelioration

of the condition of the ports, is controlled by the Collector, Central Excise.

As no effective measures can be taken up, an alternative suggestion has been made to develop Ambetha, a place well suited and having all the attributes for being developed into a good port. To quote from the Sub-Committee of the Landing and Wharfage Fees Fund Committee, 1953, "It may be necessary, after thorough investigation, to shift the main port to Ambetha where there is a constant depth of water and vessels from seawards can approach and leave the port at all times without being dependent on the phases of the tide."

At present the following commodities are imported into Broach from different places: Timber from Bulsar, Sanjan etc.; cocoanuts, Mangalore tiles, betelnuts, coir mats and ropes and mango woods timber from Malabar Coast, oil, vegetable products, cement, iron, chillies, garlic, onion, groundnut, pulses and other sundry articles from Cutch and Saurashtra ports. It is clear that the whole western coast of India is the main source of imports. Foreign trade which consisted of cocoanuts from Marmagoa and wet dates from Arabia has completely stopped from 1954 due to restrictions on trade with Goa and navigation difficulties experienced by large vessels from Arabia.

Since the chief products of the district are cotton and cotton seeds, timber and teak wood, they form the bulk of exports. Food grains such as pulses, *lang dal*, *tur dal*, wheat etc., are exported in small quantities. Besides these, ghee, wet dates, stones, marbles etc. are exported. The following is a list of the commodities exported from Broach along with their destinations: pulses, cotton, cotton seeds, coriander seeds, to Malabar coast ports; *lang dal, lang chuni and* sand to Bombay; bamboos, ballies, timber, firewood, Hindustani stones, cotton seeds and sundry articles to Cutch and Saurashtra ports.

Sea trade to all ports except Bhavnagar is carried on only in fair season for about 7 months and with Bhavnagar it is maintained throughout the year. On the basis of the statistics of the years 1948-49 to 1952-53, the average per year of imports was 31,647 tons valued at Rs. 51,11,094; of exports, 30,478 tons valued at Rs. 47,07,611; and of import duty Rs. 44,985.

The following details show the character of the shipping and the general arrangements under which the trade of the port of Broach carried on.

Generally goods shipped by seafaring vessels are insured and about half to one per cent of the cost of the loaded goods is charged as insurance fees for a total loss. These rates are raised to one and a half or two times in April and May which are considered the closing months of the season. Loss by jettisoning is not insured.

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Shipping of goods and their freights are generally settled through brokers called "vahan-dalals' who have their offices generally in the port area. These brokers also act as agents of insurance companies. Rates of freight differ according to the types of goods, the distance of the ports, and the abundance or scarcity of cargo to be carried. For example* a freight of about Rs. 60 is charged for 1000 cocoanuts shipped from Malabar Coast ports. A padav carries 70,000 to 1,25,000 cocoanuts. A vessel requires 20 to 35 days to reach Broach from Malbar coast, as the movement of ships depends on the wind. Margaloie tiles are charged about Rs. 75 to Rs. 85 per 1,000 tiles by way of freight from Mangalore to Broach. Generally 1,000 tiles are counted as 2¼ tons load. The freight from or to Saurashtra and Kutch ports varies from Rs. 10 to Rs. 25 per ton. Big machhawas tied with bamboo mats over planks on both of its sides above gunwales of the vessels take two days time for going to and two days for coming from Bhavnagar in rainy season and one day for coming from and two days for going to Bhavnagar in summer. The freight charged is from Rs. 8 to Rs. 12 per ton. Big vessels of 60 to 70 ton capacity take 8 days while going to and five days while coming from Veraval and Porbander. The freight charged is Rs. 15 to Rs. 20 per ton. Fifteen days while going to and nine days while coming from Navlakhi port is the time required for journey, and Rs. 20 to 25 per ton is charged as freight. Five to six days are required to cover the journey from Manori bunder and Rs. 10 per *khandi* of timber is charged as freight. One *khandi* weight is considered to be 15 c. ft. of timber, and padavs carry 100 to 150 *khandis* of timber. The freight rates in 1953 were much lower and were 15 to 20 per cent lower than the railway freights. At present (1956) the freight rates by railway are found lower, and some merchants have started importing cocoanuts from Malabar by railway.

The captain of the vessel is called *tandel* and the rest of the crew are termed *khalasis*, of which one is *bhandari* (the treasurer). There are three systems of sharing the freight. The owners of the coastal vessels of Surat district are generally themselves *tandels* and the arrangement made by them for the wages of the crew is on the share system. After deducting all expenses, including messing charges of the crew, the balance remaining out of the freight is divided among the owner and the crew. In the case of small-size vessels of 19 to 30 ton capacity, the owner gets five shares and one share is given to each of the other crew. In the case of vessels of 60 to 110 ton capacity, the owner gets nine shares and one share is given to each of the other crew. If the vessel is owned by more than one person on board the ship, they divide the net income into as many shares as there are partners and each *khalasi* in such ship is paid a yearly remuneration of Rs. 500 to Rs. 600.

* The freight rates mentioned in this paragraph relate to the year 1956.

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If the *tandel* is not the owner of the ship he gets one part as a crew and one additional part from the share of the owner. The second system is followed by owners of the crafts who are residents of Veraval, Porbander and Jamnagar. They engage the crew for seafaring. The pay is fixed for such crew. The *tandel* gets double the pay of the *khalasi*, which is about Rs 35 a month. The messing charges of the crew are borne by the owner. The third system is to fix the charges per trip. This is followed by the owners of the vessels of Mahuwa and Jafrabad. For example, for a trip from Malabar to Broach each *khalasi* is paid Rs. 100 and the *tandel* is paid Rs. 150. The messing charges have to be paid by the crew themselves.

During the voyage the ship is under the complete charge of the *tandel*, but when the vessel enters the river Narmada or when it has to go out of it from Broach port it has to take a pilot who is called *dungi*. This *dungi* is responsible for the safe transport of the vessel from the mouth of the river to Broach and *vice versa*. The *dungis* are fully aware of the situation of the river and arrivals of ships. They remain present at Luhara point and if no *dungi* is available there some persons from the crew come to Bhadhut in a small *kotia* or *machhawa* with the vessel, and from there they take a *dungi* with them in the same vessel. The bed of the river is silted and, therefore, big vessels cannot be piloted to Broach except during the tide time and that too on the days between *agiaras* (11th) to *chhat* (6th) of both the halves of the Hindu month. The river is so much silted that big vessels take three days to travel to Broach from Dahej. This is due to the short time of tide water available and the low speed of the vessels. If a *trawler* is provided by the authorities for these incoming and out-going vessels, the three days journey can be shortened to a single day. The *dungi* is paid a lump sum of Rs. 20 for a loaded vessel and Rs. 5 for an empty vessel as his remuneration for piloting it. He is supplied free messing by the crew of the ship during the days he is on board the ship. When a ship is not getting sufficient draught to keep itself floating it has to be partly unloaded. If it is not partly unloaded in time it strikes the sand and submerges in it and is destroyed. For unloading the vessel *machhavas* are to be obtained from Broach which are highly paid by the crew. If machhavas or navadis are not available in time some of the goods loaded in the craft are jettisoned in the river so as to secure the safety of the vessels and the other goods loaded in them.

Besides the port of Broach, there are three other very minor ports in the district, namely, Dahej, Tankari and Kavi. All the three ports are on the Eastern side of the Gulf of Cambay. Being very minor ports no steamers can call in any of these ports. Only small sailing vessels maintain the traffic. Each of these ports is administered by a Custom Officer of the rank of Supervisor. The following is a very brief account of these three ports.

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Dehej.

DAHEJ (21° 40′ N., 72° 35′ E.) : The port is situated about 2¾ miles south-east of the southern entrance of the Ban Creek. Only small sailing vessels of 10-12 tons can navigate the channel and enter the port and anchor in about 5-6 feet of water. However, during high tides vessels of 50-60 tons can enter the port. As there are no cargo handling facilities, the vessels, which anchor in the inner harbour, discharge their cargo in small boats or by head-loads.

Sea trade through the port consists in the export of a very small portion of the hinterland products, such as cotton seed, pulses, etc., and import of roofing tiles from Mangalore. The port is sheltered from the western wind in the monsoon.

Tankari.

TANKARI (22° 02′ N., 72° 35′ E.): The port is situated at the southern entrance of the Dhadar river. The port and town are seven miles inside from the mouth of the river. Small vessels of 10 to 15 tons can navigate the creek from the Tankari roadstead and anchor in the harbour. The vessels anchor midstream and the cargo is handled by small boats or by headloads. There are hardly any imports or exports worth mentioning. There are many fishing boats and good pomfrets are caught and sent to Bombay.

Kavi.

KAVI (22° 05′ N., 72° 32′ E.), a port to the south of Cambay, is situated near the mouth of the Mahi river on the southern side of its estuary. Large sailing vessels, of 100 to 150 tons can enter the port at high tide and anchor in about 8-10 feet of water. As regards cargo handling facilities, wharves etc., it may be said that sailing vessels anchor opposite the Custom House in sheltered waters and land and ship cargo by means of lighters and on head-loads. The hinterland products are Broach cotton, wheat, pulses and grains. Kavi is the terminus of the Jambusar-Kavi narrow gauge section of the Western Railway. A very small part of the hinterland products is exported from here.

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CHAPTER 10—OTHER OCCUPATIONS

Other Occupations.
INTRODUCTION.

IN THE PREVIOUS CHAPTERS, an account of agriculture, industry, trade, finance and transport in the district has been given. These sectors of economy, important as they are, do not fully exhaust the entire economic activity in the district. Besides these, a fairly good proportion of population is engaged in various professions like law, medicine, teaching, public administration and certain crafts and small occupations which are increasingly gaining in importance. A description of some of these occupations has been given in this chapter.

The account of crafts and other occupations given below is based upon a small sample survey conducted in the town of Broach. For the purpose of carrying out the sample survey, the census of establishments showing ward-wise break-up of establishments and employment provided by each occupation was supplied by the Broach Borough Municipality. (See Table No. I).

For detailed investigation, samples of establishments were taken out of the total number of establishments in each occupation and craft. The basis of sample selection was the number of establishments and not the employment offered by them. Although the percentage of samples was not uniform throughout, considerable care was taken to make it as representative as possible by including in the sample, establishments of each type and from each locality. Also, in the sample were included establishments of varying sizes.

The percentage of samples varied from 6 to 33. In the case of 3 occupations, viz., tailoring, hotels and restaurants and sellers of copper and brass utensils, it was less than 10. In the remaining occupations it varied from 10 to 33%. (See table No. 2.).

It is evident from Table No. 2 that wherever the total number of establishments was large, the percentage of samples was small. The occupation of selling of copper and brass utensils was an exception to this; here both the number of establishments and percentage of the sample were small.

CENSUS OF ESTABLISHMENT.

Since all the occupations and crafts mentioned in Table No. 1 were regulated under the Shops and Establishments Act of 1948, the census of establishments was supplied by the Broach Borough Municipality.

Employment figures in Table No. 1 were inclusive of employers, employees, and apprentices but exclusive of employer's family members. Hence employment provided by each occupation was somewhat greater than what was found in Table No. 1.

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CENSUS OF ESTABLISHMENT.

It is evident from Table No. 1 that no occupation provided employment to women. This was so because members of the employer's family were not included in the Table. In certain occupations, particularly laundries, hotels and restaurants, and flour mills, women members of the employer's family were found helping in running the business. But it would be correct to say that the percentage of women workers to men workers was negligible.

In Table No. 1 boy employees were included in the column of men employees; and hence no boy employees were shown separately; the results of the sample survey, however, clearly bore out the fact that in certain occupations, especially running of hotels and restaurants, and flour mills, a fairly large number of boys were employed.

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CENSUS OF ESTABLISHMENT.

TABLE No. 1

WARD-WISE BREAK-UP OF ESTABLISHMENTS IN EACH OCCUPATION IN THE CITY OF BROACH.

Name of the occupation	Number of establishments in different wards.					Total number of establishments	Percentage to total number of establishments.	*Total number of persons employed inclusive of employers				Percentage to total number of persons employed
	A	B	C	D	E			Male	Female	Children	Total	
(1) Pan Bidi	52	17	12	17	60	158	22.8	229	—	—	229	20.4
(2) Tailoring	21	34	19	32	35	141	20.3	169	—	—	169	15.0
(3) Hotels and restaurants inclusive of Boarding and Lodging Houses ...	48	19	7	16	34	124	17.9	306	—	—	306	27.2
(4) Hair cutting Saloons ...	14	10	6	12	26	68	9.8	85	—	—	85	7.6
(5) Sweets and farsans ..	18	5	5	9	11	48	6.9	88	—	—	88	7.8
@(6) Sellers of copper and brass utensils	—	30	1	—	—	31	4.5	31	—	—	31	2.8
(7) Flour Mills	6	4	4	1	15	30	4.3	88	—	—	88	7.8
(8) Goldsmiths	4	9	2	9	6	30	4.3	47	—	—	47	4.2
(9) Laundries	6	7	4	4	1	22	3.2	25	—	—	25	2.2
(10) Cycle repairing	7	3	—	2	4	16	2.3	19	—	—	19	1.7
(11) Bakeries	1	2	—	3	6	12	1.7	23	—	—	23	2.0
(12) Tinsmiths	—	4	1	1	5	11	1.6	11	—	—	11	0.9
(13) Manufacturing and repairing of musical instruments	3	—	—	—	—	3	0.4	4	—	—	4	0.4
TOTAL	180	144	61	106	203	694	100	1125	—	—	1125	100.0

* Figures in the employment columns are exclusive of family members of employers.

@Figures relate to sellers of copper and brass utensils and not to coppersmiths which form a separate class.

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Other Occupations.

CENSUS OF ESTABLISHMENT.

TABLE No. 2

NUMBER OF ESTABLISHMENTS AND LABOUR EMPLOYED THEREIN COVERED BY THE SAMPLE SURVEY.

Name of the occupation.	Total No. of shops in the town	No. of shops surveyed	Percentage of the sample	Employment including employers and family members in the occupations surveyed				Employees and apprentices in the occupations surveyed				Grand Total
				Men	Women	Boys	Total	Men	Women	Boys	Total	
1. Pan-Bidi	158	18	12	31	—	1	32	41	—	—	41	73
2. Tailoring	141	10	7	14	—	—	14	8	—	—	8	22
3. Hotels and Restaurants ..	124	10	8	14	2	—	16	33	1	20	54	70
4. Haircutting saloons	68	7	10	12	—	—	12	1	—	—	1	13
5. Sweets	48	6	12	12	—	—	12	16	—	1	17	29
6. Seller of brass and copper utensils	31	2*	6	2	—	—	2	2	—	—	2	4
7. Flour mills	30	7	23	10	1	1	12	8	—	5	13	25
8. Goldsmiths	30	4	13	4	—	—	4	2	—	—	2	6
9. Laundries	22	4	18	10	8	2	20	—	—	—	—	20
10. Cycle repairing	16	4	25	7	—	—	7	3	—	—	3	10
11. Bakeries	12	2	17	4	—	1	5	3	—	—	3	8
12. Tinsmiths	11	2	18	3	—	—	3	—	—	—	—	3
13. Manufacture and repairs of musical instruments ...	3	1	33	1	—	—	1	1	—	—	1	2

*Of the two establishments, One was a seller of copper and brass utensils and the other, a coppersmith.

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CENSUS OF ESTABLISHMENT.

According to the census of establishments there were 31 sellers of copper and brass utensils offering employment to only 31 persons. The figures regarding employment, however, seem to be underestimated because it was observed that each establishment had at least one unskilled servant to weigh the utensils.

The following table gives the total number of shops in each ward and their distribution in particular areas.

Name of the ward.	*Number of shops.*	*Percentage to total No. of establishments.*
A	180	26.0
B	144	20.8
C	61	8.8
D	106	15.2
E	203	29.2
	694	100

In ward A, Station Area, Station Road, Panch Fanas and Kabirpura were the busy localities where most of pan-bidi shops, tailoring firms and hotels and restaurants were situated.

In ward B, Chokshi lane, Valanda Kothi and Kansarwada were the busy localities. In this ward, mainly tailoring firms and shops of sellers of copper and brass utensils were situated. All shops but one of sellers of copper and brass utensils were situated in Kansarwada.

In ward C, there were no particular localities where shops were found concentrated. Sixty-one establishments situated in the ward were dispersed all over the ward.

In ward D, establishments were concentrated in the following localities, viz:

(1) Kathopore Slope and Kathopore Bazar.

(2) Furza Road and Furza Bunder and

(3) Vaizalpore. Mainly tailoring firms, shops of farsan and goldsmiths were found in the ward.

Ward E was the heart of retail trade in the town. Bhatiarwid lane, Chipawad and Panch Hatadi were the busy localities. Katopore Bazar, situated in the centre of the town and the nerve centre of business, part of which was in ward D and part in Ward E, resembled a large departmental store where everything important was available. A large number of pan bidi shops, tailoring firms, hair-cutting saloons, flour mills and hotels were located in this area.

CENSUS OF ESTABLISHMENT.

Table No. 1 shows that, as far as the number of establishments was concerned, the occupation of pan bidi topped the list, followed by tailoring, and hotels and restaurants. But so far as the extent of employment was concerned, the situation was reverse; hotels and restaurants topped the list followed by pan bidi and tailoring. There were 158 pan bidi shops or 23% of the total number of establishments, providing employment to 229 persons or 20.3% of the total employment. As against this, 124 hotels and restaurants or 17.9% of the total number of establishments provided employment to 306 persons or 27.5% of the total employment. This is explained by the fact that while most of the pan bidi shops were one-man shops requiring no employees or only a few employees to roll bidies, hotels and restaurants which included boarding and lodging houses employed skilled and unskilled workers, such as managers, cooks and waiters. Similarly, there were 141 tailoring firms or 20.5% of the total number of establishments, providing employment to 169 persons or 15% of the total employment. These firms were mainly family concerns and only in a few cases-paid employees were hired. Moreover, tailoring occupation did not provide permanent employment to outside workers. Persons were recruited on piece wages as and when the need arose during the brisk season. In other words, it offered only seasonal employment.

The income of those who were engaged in the occupations and crafts mentioned in Table No. 1 had a close relationship to the income of agriculturists of Broach district in general and Broach taluka in particular, which, in its turn depended upon crop conditions, particularly of the cotton crop This was pointedly so in the case of hotels and restaurants, sweets and farsan establishments, sellers of copper and brass utensils and gold and silver smiths, a fair percentage of whose clientele was constituted by the agricultural population of the Broach taluka. Hence, these occupations were more seriously affected in their turnover during the rainy season.

PAN-BIDI.

There were four types of pan bidi establishments in the town of Broach, viz.

(1) exclusive pan shops.

(2) exclusive bidi shops where bidis were manufactured and sold.

(3) pan and bidi shops where bidis were manufactured and sold together with pan.

(4) pan and bidi shops where bidis were sold but not manufactured.

There were 158 pan bidi establishments in the town of which 52 were in ward A, 17 each in wards B and D, 12 in ward C and

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PAN-BIDI.

60 in ward E. Total number of persons engaged in this occupation was 229.

Our sample consisted of 18 establishments of which four were in ward A, three in ward B, three each in wards C and D and five in ward E.

The following table gives the number of shops surveyed in each of the above mentioned groups and employment provided by them.

Type of establishments.	No. of Shops surveyed.	Employment to Family Members				Employees				Grand Total.
		Men.	Wo-men.	Boys.	Total.	Men.	Wo-men.	Boys.	Total.	
Exclusive pan shops.	1	2	—	1	3	—	—	—	—	3
Exclusive bidi shops.	8	13	—	—	13	24	—	—	24	37
Pan and bidi-making shops	8	14	—	—	14	17		—	17	31
Pan and bidi shops where bidis are sold but not manufactured.	1	2	—	—	2	—	—	—	—	2
TOTAL ...	18	31	—	1	32	41	—	—	41	73

Exclusive Pan shops.

The establishment expenses, i.e., the expenses on rent, electricity, water and repairs, were Rs. 20/- per month. Raw materials required for running the concern were betel leaves, betel nuts, lime or *chuno*, *katho*, etc. The monthy net income was reported to be Rs. 50/-. The shop remained open between 7 A.M. and 8 P.M.

The establishment expenses varied from Rs. 12 to Rs. 30/- per month per shop.

The raw materials required in making bidis were *Timaru* leaves, tobacco and thread. The expenditure incurred on raw materials ranged from Rs. 50 to Rs. 200 per month. Wages were paid on the basis of the number of bidis rolled by each worker. Rates of wages ranged from Rs. 2 to Rs. 2-8 per one thousand of bidis rolled. The output of workers varied from 500 to 1000 bidis per day. The total monthly wage bill, on an average, ranged from Rs. 60 to Rs. 300. In most of the establishments wages constituted the major item of expenditure.

CHAPTER 10. Other Occupations. PAN-BIDI

The monthly net income ranged from Rs. 75 to Rs. 300. No marked seasonal variations in the turnover of business obtained.

These were more or less petty family concerns, engaged in making and selling bidis and *pan*. However, they often employed one or two workers for the manufacture of bidis.

Expenditure pattern of these types of establishments was more or less the same as the first and the second types and hence needs no elaboration. However, the net income of the owners of these types of establishments was greater than that of the owners of the first type and slightly lesser than that of the owners of the second type of establishments.

Pan and bidi shops.

These were the shops which sold pan and bidi. The latter were not manufactured by the owners but were purchased from the other dealers.

Expenditure incurred on the establishment was Rs. 15 per month and on raw materials, Rs. 210 per month. The monthly gross income was Rs. 300 and the net income, Rs. 75.

Bidis were purchased at the rate of Rs. 5 per thousand and sold retail at the rate of three annas per 25 or Rs. 7-8 per thousand.

TAILORING.

There were 141 tailoring firms in the town of Broach of which 21, 34, 19, 32 and 35 were situated in wards A, B, C, D, and E respectively. They provided employment to 169 persons or 15% of the total employment. Most of the firms were stitching clothes of both men and women. However, there were quite a few firms which exclusively stitched men's clothes.

Our sample consisted of ten firms of which four were in ward E, two each in wards B and D and one each in wards A and C. Ten shops in the sample provided employment to 22 persons of whom 14 were owners and their family members and eight were employees. Of the ten shops, only three were maintaining paid employees. The remaining were family concerns. Those firms which did not maintain any employees at the time of our inquiry were, however, found to employ some workers during the brisk season, i.e. from November to April.

Employees were paid on piece rate system. The rate of wages was equivalent to half the stitching charges for a particular piece of garment.

The monthly expenses on establishment ranged from Rs. 13 to Rs. 33, and on raw material from Rs. 3 to Rs. 20.

The monthly gross income was about Rs. 300. The monthly net income varied from Rs. 64 to Rs. 210.

The following table shows the percentage expenditure on

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various items which went into the cost of production in the large and small establishments. The size of the establishment was determined on the basis of gross turnover.

Size of the establishment.	Percentage on raw material.	Percentage on wages.	Percentage on establishment.
Large	10.4	61	28.6
Small	11.6	Nil	88.4

The tailors' tools consisted of sewing machines, iron-gaj of 27 inches, and/or a measuring tape, pairs of scissors, needles, thread, thimbles or *anghuti*, wooden board and iron.

The capital invested in equipment and furniture varied from Rs. 200 to Rs. 1,500.

Stitching charges varied from Rs. 3 to Rs. 4 for a coat; Re. 1 to Rs. 1-8 for trousers; Re. 1 for a shirt and kurta; annas 12 for a pyjama and for a blouse and annas 8, 4 and 2 for a frock, bodice and chania respectively.

Clientele was mainly local, but during the marriage season, rural population constituted a fairly large percentage of customers.

Working hours were from 8-0 A. M. to 7-0 P. M. with one hour's rest for lunch at noon. However, during the marriage season—their busiest time-hours of work were increased from 7-0 P. M. to 8-0 P. M. or 9-0 P. M.

November to April was found to be brisk season, and June to September, a slack one.

HAIR-CUTTING SALOONS.

There were 68 hair-cutting saloons in the town of which 14 were in ward A, 10 in ward B, 6 in ward C, 12 in ward D and 26 in ward E. They provided employment to 85 persons or 7.5% of the total employment.

Our sample consisted of seven saloons of which two were in ward E, two in ward A, and one each in wards B, C and D.

In all the saloons in the sample a total of 13 persons was engaged. Of these seven were owners; five, family members of owners and one, employee. Of the seven saloons in the sample, three were run by owners alone, three by owners and their family members and the remaining one was run by owner with the help of a hired employee. The employee was paid Re. 1 per day.

The barber's appliances consisted of copper or brass or aluminium or plastic cup (*Vadki*), brushes, mirrors, three or four razors, pairs of scissors, hair-cutting machine, an iron nail-parer (*nareni*), soap, leather strap, combs, a piece of cloth about a square yard and a white stone. The furniture of a saloon consisted of one or two chairs, one or two tables and one or two benches.

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HAIR-CUTTING SALOONS.

The barber's tools were worth about Rs. 25 (if he had only one set of these instruments). The life of hair-cutting machines was put at about 2 years; razors and brushes at about 1 year; and of pairs of scissors about 6 months.

The capital invested in appliances and furniture varied from Rs. 100 to Rs. 300.

The expenses on rent and electricity varied from Rs. 13 to Rs. 29 per month; on raw-materials —soap, oil, face-powder, and water — from Rs. 3 to Rs. 10 per month. Of the seven shops only three got their apparatus sharpened by professional sharpeners. They spent about Rs. 3-8-0 per month for the same.

The monthly gross income varied from Rs. 75 to Rs. 180 and the net income from Rs. 59 to Rs. 149.

Rates for hair-cutting and shaving were annas 6 and 2 respectively.

The local population constituted a major portion of the clientele. Sunday was found to be the busiest day.

HOTELS AND RESTAURANTS.

The group of hotels and restaurants consisted of five distinct types of establishments, viz. (1) restaurants where beverages, cold drinks and snacks were served; (2) hotels where in addition to beverages and snacks, meals were served; (3) boarding and lodging houses; (4) exclusive tea shops and (5) exclusive cold-drink houses. No separate numerical classification was available for each of these sub-groups.

There were 124 hotels and restaurants in the town, of which 48 were in A ward, 19 in ward B, 7 in ward C, 16 in ward D and 34 in ward E. They provided employment to 306 persons which was the highest amongst the selected occupations and crafts.

Our sample consisted of ten hotels and restaurants of which five were restaurants, two hotels, two boarding and lodging houses and one tea shop.

Restaurants.

The five restaurants provided employment to 38 persons of whom 32 were employees and 6 owners and their family members. Of the 32 employees, 5 were cooks, 17 were waiters and 10 were servants. In every restaurant, the owner was found to be a manager-cum-cashier. Wages of cooks varied from Rs. 40 to Rs. 45 per month; those of waiters from Rs. 15 to Rs. 20 per month and those of servants from Rs. 10 to Rs. 15 per month. All the employees were provided with free lunch and tea in the noon. The monthly wage bill in the 5 restaurants ranged from Rs. 100 to Rs. 200. The expenses on establishment i.e. on rent, electricity, licence fees, repairs and renovating, varied from Rs. 22 to Rs. 75 per month. Expenses on raw-materials varied from Rs. 400 to Rs. 957 per month.

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Restaurants.

The monthly gross income ranged from Rs. 700 to Rs. 1560 and the net income from Rs. 148 to Rs. 338 per month. The following table gives the percentage of expenditure on various items of total expenses in the large and small establishments. The percentage of expenses in the large and small establishments was obtained by taking simple average of the three large and two small shops respectively. The size of the firm was determined on the basis of gross turnover. The ratio between the small and the large shops was roughly 1:2.

Type of establishment.	Percentage on raw material	Percentage on wages.	Percentage on establishments.
Large	72.0	20.2	7.8
Small	72.4	20.6	7.0

It is evident from the table that raw materials constituted the major portion in the cost of production. Wages and establishment charges respectively constituted minor items of expenditure as compared to the raw materials.

The initial capital investment in these five restaurants ranged from Rs. 300 to Rs. 2500. The equipment chiefly consisted of tables, chairs, crockery, utensils, mirrors for decoration, radio or gramophone, etc. The life of furniture and mirrors was put at about 25 years; of utensils at about 6 years and of crockery at about 6 months. Expenditure on repairs ranged from Rs. 25 to Rs. 150 per month.

These restaurants generally supplied hot beverages like tea and coffee, though in some cases cold drinks and eatables, such as *Farsans* were also supplied.

Most of the hotels remained open from 8-0 A. M. to 8-30 P. M.

The monsoon was found to be a slack season, whereas the months from April to June formed the brisk season.

Hotels.

Two hotels in our sample provided employment to 18 persons of whom 15 were employees and three owners and their family members. Of the 15 employees, two were cooks, seven were waiters and six were servants. In every hotel, the owner or any of his family members was found to be manager-cum-cashier. Wages of cooks ranged from Rs. 20 to Rs. 45 per month; of waiters from Rs. 8 to Rs. 15 per month and of servants from Rs. 10 to Rs. 15 per month. In one of the hotels surveyed, the brother of the owner was paid Rs. 75 per month for managing the hotel.

Of the total expenses, 9.5% and 7.7% were spent on establishment, 68.7% and 79.1% on raw materials and 21.8% and 13.2% on wages in two hotels respectively. Monthly gross incomes were about Rs. 1,800 and Rs. 1,400, while net incomes were about Rs. 425 and Rs. 363 respectively.

HOTELS AND RESTAURANTS.
Hotels

The capital investments in these two hotels were about Rs. 1,500 and Rs. 3,000 respectively. The equipment chiefly consisted of tables, chairs, benches, crockery, utensils and mirrors for decoration. The life of the furniture was put at about 25 to 30 years; of utensils at about 5 years; and of crockery at about 6 months.

Since both the hotels were non-vegetarian, in addition to hot beverage and snacks like *samosa* and *kabab*, they served *roti*, *khichadi*, cooked rice, cooked vegetables, mutton and fish. Price of roti was two annas; of *khichadi*, mutton and fish eight annas per plate; of rice ten annas per plate; of vegetables four annas per plate. Samosas and *Kababs* were sold at eight annas per dozen. In both the hotels half rates were charged for serving half plate.

Both the hotels catered to the needs of all communities but Muslims constituted a greater percentage of clientele. Rural population of the Broach taluka formed quite a fair percentage of the total clientele, particularly during the months from February to April.

Both the hotels remained open from 6-0 A. M. to 8-0 P. M.

February to April was the brisk season; June to November was the dull season.

Boarding and Lodging Houses.

The sample consisted of two boarding and lodging houses of which one was vegetarian and the other non-vegetarian.

The vegetarian boarding and lodging house offered employment to six persons whom three were employees and the rest were family members, including a male who was the owner and two females. Of the three employees one was a waiter and two were servants. No cook was employed, as cooking was done by women members of the owner's family. The monthly wages of servants were from Rs. 15 to Rs. 17 and of waiter Rs. 12. All the employees were provided with free meals, both in the morning and in the evening.

Of the total expenses, expenditure on raw materials constituted 70.8%, on establishment 18.8%, on wages 9.9% and on advertisement 0.5%.

The monthly gross income was about Rs. 620 of which Rs. 570 were obtained from boarding and Rs. 50 from lodging. The net income was about Rs. 177 per month.

Amount of capital invested initially was Rs. 1,000. The capital was mainly invested in cost mattresses, pillows, tables, chairs and utensils. The life of furniture was found to vary from 10 to 25 years, and that of utensils from 4 to 6 years. Rs. 300 were annually spent on repairs and renovating.

The boarding and lodging house served meals in the morning and in the evening. The morning meals consisted of *chapaties*, *dal*,

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Boarding and Lodging Houses.

rice, vegetables and pickles and curd or butter milk. Price for half a plate of meals was ten annas and that of a full plate Rs. 1-4-0. The evening meals consisted of puries or *bhakries*, dal and pulses. The lodging charges per day were Re. 1-0-0 per single room and annas 8 per bed in double seated room. The monthly charges for boarding and lodging were Rs. 60 and Rs. 45 for boarding.

Monsoon was a dull season, whereas months from February to April provided brisk business.

The non-vegetarian boarding and lodging house provided employment to five persons of whom one was the owner and four, employees. Of the four employees one was a cook, two were servants and one was a waiter. Of the two servants, one was a woman. Salary of the cook was Rs. 30 per month; of servants Rs. 20 and Rs. 15 per month respectively; and of the waiter Rs. 25 per month.

Of the total expenses, 61.2% was spent on raw materials, 18.3% on wages and 20.5% on establishments.

The monthly gross income was about Rs. 790 of which Rs. 750 were obtained from boarding and Rs. 40 from lodging. The net income was Rs. 300 per month.

The initial capital investment was Rs. 2,000. It was chiefly invested in furniture, cots, pillows, mattresses, bed-sheets and utensils. The life of furniture was put at about 25 years and that of utensils at about 5 years.

The boarding and lodging house served *chapaties, dal,* rice, mutton, fish and pickles. Unlike the vegetarian boarding and lodging house, lunch and supper were served on the basis of "plate system". Customers could demand one or more of the available delicacies and pay accordingly. Daily about 25 persons took meals in this boarding and lodging house. It had capacity to accommodate 15 lodgers. The rates of lodging were as follows:—

Rs. 9-8-9	for double seated room per day;
Re. 0-4-0	for bed per day;
Rs. 1-8-0	for single seated room per day.

Non-vegetarians constituted a major percentage of the clientele. Monsoon was a dull season.

Tea Shops.

One tea shop in our sample provided employment to three persons. There were no employees and all of them were the members of the owner's family. The owner was working as a manager-cum-cashier while two other family members worked as waiter-cum-servants. Of the total expenses, 91% was spent on raw materials, and 8.9% on establishment.

The monthly gross income was about Rs. 416 and net income was about Rs. 90. The amount of capital investment was Rs. 200.

HOTELS AND RESTAURANTS.

Tea Shops.

The chief equipment consisted of benches, tables and crockery. Rs. 30 per year were spent on repairing and renovating.

The shop served tea, coffee and cocoa. The Monsoon was found to be a dull season.

In the year 1952, Hotels and Restaurant Owners Union was started. It had a membership of sixty and a subscribed share capital of Rs. 2,500 divided into 250 shares of Rs. 10 each. The entrance fee was Re. 1.

The primary object of this union was to give loans to its members. The Union was thus co-operative in character.

Sweets.

Since time immemorial Broach is famous for her confectionaries which were exported not only to various parts of the Bombay Presidency but also to foreign countries. However, in recent years, there has been a gradual decline in the industry. In spite of the difficult supply position of raw materials, there was some impetus to the industry during the second world war, but it dwindled in the post-war years, partly because of the introduction of a variety of new delicacies unknown to the local confectioners and partly because of the stiffer competition from Bombay and Surat markets. At the time of our survey, the market for local confectioners was confined to Broach district only.

Class of Sweets, in the census of establishments included three types of establishments viz., (1) exclusive sweet shops (2) exclusive *farsan* establishments and (3) sweets and *farsan* establishments.

There were 48 sweets establishments in the town of which six were exclusive sweets shops, 24 exclusive *farsan* establishments and the remaining 18 sweets and farsan establishments. There were 18 establishments in ward A, 5 each in wards B and C, 9 in ward D and 11 in ward E. The total number of persons engaged in the occupation was 88.

The sample consisted of six etablishments of which three were dealing exclusively in sweets, two exclusively in *farsans* and one in sweets and *farsans* combined. Six establishments gave employment to 29 persons of whom 12 were owners and their family members and the remaining 18 were employees. Of the 17 employees, there were two managers, salesman, eight cooks and six servants. The wages of managers varied from Rs. 70 to 75 per month; of cooks from Rs. 50 to 60 per month; and of servants from Rs. 15 to 30 per month. All the establishments provided free meals to cooks and servants.

Exclusive Sweets Establishments.

Three exclusively sweets establishments in our sample provided employment to 17 persons of whom five were owners and their family members and the remaining 12 employees. Of the 12 employees there were five servants, five cooks, one manager and one salesman. The total wage bill varied from Rs. 120 to Rs. 240 per month or from 15.5% to 38.2% of the total expenses.

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HOTELS AND RESTAURANTS. Exclusive Sweets Establishments.

Of the three establishments, two were housed in rented premises and the remaining one was housed in the owner's building. The monthly establishment expenses varied from Rs. 45 to Rs. 90 or 6% to 15.9% of the total expenses.

Raw materials required for making sweets were *mendo, ravo,* sugar, ghee, essence, dry fruits etc. The monthly expenditure on raw materials varied from Rs. 140 to Rs. 1,042 or 44.5% to 67.4% of the total expenses.

Two establishments of the three incurred 1.4% to 5.4% of the total expenditure on advertisements; one establishment of the three incurred 2.4% of the total expenditure on interest on working capital.

The monthly gross income varied from Rs. 525 to Rs. 2500; and the net income (after paying all the taxes) from Rs. 206 to Rs. 823.

Initial capital invested in various tools and furniture varied from Rs. 800 to Rs. 1500.

All the establishments sold *Halvas* of various types, *Gunderpak, Sutarfeni, Barfis, Pandas* etc. Prices of these products varied from Rs. 1-8 to Rs. 2 per lb.

Clientele was mainly composed of local and rural population of Broach district. However, in the case of one establishment, occasionally the products were exported to Bombay and Africa.

All the shops remained open from 7-00 A. M. to 8-30 P. M.

Monsoon was the slack season. Sales shot up at the time of the festival days such as Diwali and Dassera.

Exclusively Farsan Shops.

Two exclusively farsan shops in our sample offered employment to seven persons of whom two were owners and five employees. Of the five employees three were cooks, one was a manager and one, a servant. The total monthly wage bills in the two establishments were Rs. 45 and 90 or 8% and 11.8% respectively of the total expenditure..

Both the establishments were housed in rented premises. Their establishment expenditure was Rs. 60 and Rs.54 or 7·5% and 10% respectively of the total expenditure.

The raw materials needed for making of farsans were oil, chillies, *besan* or gram flour etc. The expenditures on raw materials were Rs. 650 and Rs. 469 or 80.7% and 82% respectively of the total expenditure.

The monthly gross incomes were Rs. 1170 and Rs. 910 and net incomes Rs. 356 and Rs. 342 respectively.

Initial capitals invested in various tools and furniture in both the establishments were Rs. 200 each.

Both the establishments sold *sev, ganthia, chevado khaman bhajia* etc. Prices of these products varied from Re. 0-6-0 to Re. 0-12-0 per lb.

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Farsan Sweets Combined.

The local and the rural populations of the Broach taluka constituted the clientele.

No marked seasonal variations obtained.

One establishment in our sample provided employment to five persons. No outside workers were employed in the establishment.

The expenditure on establishment was Rs. 75 per month or 11% of the total expenses. Expenditure on raw materials was Rs. 602 per month or 89% of the total expenses.

The monthly gross income was about Rs. 1,000; and net income about Rs. 323.

Rs. 1,000 were invested in fixed capital consisting of various tools and furniture.

90% of the clientele consisted of local population and the remaining 10% the rural population of Broach taluka.

SELLERS OF COPPER AND BRASSWARES.

In the town of Broach two distinct classes were engaged in this occupation of making and selling of copper and brasswares, viz.. (1) artisans and (2) traders i.e. the sellers of copper and brasswares.

The former manufactured copper and brasswares as per order of the latter who supplied them the necessary raw materials. They were essentially craftsmen having no direct stake in the business fluctuations. Since all the investment was made by the traders, they had to invest only in the purchase of a few tools. And since they did not invest in raw materials their income was much less than that of the traders. Further, income of this group of people was closely linked with the investment activity of the traders which in turn depended upon the expectation of traders about the likely future demand for their products.

The latter who only sold copper and brasswares was a body of persons who purchased copper and brass sheets from Bombay and elsewhere, got the utensils manufactured from the local artisans, and sold the finished products to the local or the district population. In other words, they can be considered as middlemen between the manufactures and consumers since they invested quite a large sum in the purchase of raw materials. Since considerable time lag was involved between the purchase of raw materials and the sale of finished products, their risk and hence the margin of profit too, was great

Establishment and employment figures under the heading of sellers of copper and brass utensils in Table No. 1 relate only to traders and not to artisans.

There were 31 sellers of copper and brass utensils of whom 30 were situated in ward B and one in ward C. There was a complete localisation of trade in the area known as Kansarwad. Since

CHAPTER 10. — Other Occupations. SELLERS OF COPPER AND BRASSWARES.

artisans did not come under the Shops and Establishment Act, 1948, their exact total strength was not available. However, at the time of our survey it was estimated at twenty-five.

The sample consisted of two establishments, one from each class.

One establishment of a seller of copper and brasswares in our sample provided employment to three persons of whom one was the owner and the remaining two, employees. Of the two employees one was an accountant and the other, a servant. The wages of accountant and servant were Rs. 50 and Rs. 15 per month respectively. Besides these, artisans were paid on piece rate system at the rate of Rs. 10 per maund. The yearly expenditure incurred on wages of artisans was Rs. 1500. Wages constituted 17.3% of the total expenditure. The yearly expenses incurred on establishment were Rs. 374 or 2.8% of the total expenditure; on copper and brass sheets Rs. 9600 or 72.9% of the total expenditure; and on interest on borrowed capital Rs. 800 or 6% of the total expenditlre, the capital being borrowed at the interest rate of 9%.

The monthly net income was about Rs. 500.

The establishment sold various types of household utensils such as barrels, *beda*, *tapela*, *vataka*, cups, saucers etc. All the goods were sold at a fixed price on the basis of weight of each vessel. At the time of our survey goods were sold at the price of Rs. 160 per Bengali maund.

The whole district constituted the clientele. However, barrels were exported to Bombay.

The establishment remained open from 9-00 A. M. to 8-00 P. M.

February to June was the busy season. July to September was the dull season. Business in the remaining months was neither very slack nor very heavy.

ARTISANS OR COPPERSMITHS.

One shop of a coppersmith provided employment to one person.

The tools of the coppersmith consisted of hammers and kharbers of various sizes, anvil, pairs of scissors and a small forge. Cost of the tools was estimated at about Rs. 200.

The expenditure incurred on rent, electricity etc. was Rs. 17; and on raw meterials such as acids and coal was Rs. 10.

The monthly net income was about Rs. 80, party obtained from vessels manufactured and partly from repairing and mending household vessels of the local population.

The sellers of copper and brasswares paid coppersmiths on the basis of the weight of the vesse'. At the time of our survey they were paid at a rate of 3 to 6 annas per pound.

The rated productive capacity of a coppersmith per day was a vessel or vessels weighing 20 lbs.

SELLERS OF COPPER AND BRASSWARES. Artisans or Coppersmiths.

There were no fixed hours of work; but during the busy season, i.e. February to May, except during two hours at noon, "their quarters resound with hammering from dawn to late at night".

In the year 1951, Broach Kansara Kamgar Audyogik Sahakari Mandli Ltd., was established with the primary object of purchasing brass and copper sheets on a co-operative basis and to distribute the work of manufacture of vessels equitably amongst the Kansara members. It had a subscribed capital of Rs. 2,000. In the years 1952-53 and 1953-54 the Government of Bombay gave a subsidy of Rs. 600 for management expenses. In the year 1952 the Mandli received a cash credit loan of Rs. 8,000 from the Southern Gujarat Industrial Co-operative Bank, Surat, on the government guarantee of repaying 30% of the loan, in the case of default.

At the time of our survey (1954) a proposal was afoot to establish a rolling mill on co-operative basis.

FLOUR MILLS.

According to the Census of Establishments, there were 30 flour mills in the town of Broach of which six were in ward A, four each in ward B and C, one in ward D and 15 in ward E. Of the 30 flour mills 20 used electric power and the rest, oil engines. The latter type of flour mills were a later development in point of time. Most of them came into existence after the increase in the rate of electric power from Rs. 0-3-6 to Rs. 0-4-6 per unit in the year 1952.

The sample consisted of seven flour mills — four run by electric energy and three by oil engines — of which one each was situated in wards A, B, C and D and three in ward E.

Seven flour mills in the sample provided employment to 25 persons, of whom 12 were the owners and their family members and 13 employees. Of the 12 owners and their family members, ten were men,one was woman and one was boy. Of the 13 employees eight were men and five were boys.

Of the seven flour mills, two run by oil engines employed skilled workers to work on the machine. They were paid Rs. 50 to Rs. 35 per month. In the rest, owners and grown up male members of the family worked on the machines. Wages of the unskilled workers ranged from Rs. 10 to Rs. 15 per month. The total expenditure incurred on wages varied from Rs. 35 to Rs. 72 per month or 13.2% to 34% of the total expenditure. The expenditure incurred on wages in mills run on electric energy varied from Rs. 22 to Rs. 35 per month or 7% to 15% of the total expenses.

Of the seven flour mills, four were housed in their owned buildings while the rest were housed in rented premises. The estimated value of the building at the 1954 price level ranged from Rs. 900 to Rs. 1050. The owners of the buildings where flour mills were housed paid municipal taxes ranging from Rs. 15 to Rs. 18 per year. Where the mills were housed in rented premises, rent ranged from Rs. 12 to Rs. 21 per month. Of the total expenses about 0.6%

CHAPTER 10, Other Occupations, FLOUR MILLS.

was spent on establishment when the mills were housed in their owned premises while 10% was spent in the case of mills housed in rented premises. The mechanical equipment in the case of mills run with the aid of electric power consisted of electric motor of 10 to 11 H. P., grinding machine, grinding stones etc. The cost of the complete equipment ranged from Rs. 950 to Rs. 1500. One flour mill in our sample, also had a oil seeds crushing machine, the cost of which was Rs. 7200. The life of the equipment was put at 20 years. The yearly repairs and renovating expenses ranged from Rs. 80 to Rs. 400 or 2.6% to 10.7% of the total expenses.

The mechanical equipment of mills having oil engines consisted of oil engine, grinders etc. The cost of the complete equipment ranged from Rs. 3850 to Rs. 10,000. The yearly repairing and replacement expenditure varied from Rs. 250 to Rs. 500 or 9.7 to 12% of the total expenses. Besides mechanical equipment, each flour mill had scales, weights, one or two benches and one or two tables. The cost of the same ranged from Rs. 50 to Rs. 75.

Electrical energy was supplied by the local power house at the rate of Re. 0-4-6 per unit. In the year 1952 the rate was Re. 0-3-6. It was reported that grinding of one kacha maund of grains required one unit of electric energy. The total expenditure incurred on electric energy ranged from Rs. 136 to Rs. 250, or from 80 to 83.9% of the total expenses. The total expenditure incurred on crude oil, grease, mobil oil etc. in mills with oil engines ranged from Rs. 90 to Rs. 435 or 47% to 80% of the total expenses.

In the mills run by oil engines the monthly grinding of grains ranged from 600 to 1560 katcha maunds. In the mills run by electric power it varied from 474 maunds to 890 maunds. It was legally permitted to return 39 lbs. of flour for every 40 lbs. of grains ground. This system was known as *kasar.* One pound of wheat flour was sold at Re. 0-3-6 and that of Bajri and Jowar at Re. 0-2-6. The rates of grinding cereals in mills run by oil engines varied from Re. 0-1-0 to Re. 0-6-0 per katcha maund and that in the mills run by electric power ranged from Re. 0-6-0 to Re. 0-8-0 per katcha maund. The prevalent market rate was Re. 0-6-0 but a few mills were charging from 4 annas to 8 annas per maund.

The monthly gross income of mills run on oil engines ranged from Rs. 337 to Rs. 900 and net income, from Rs. 132 to Rs. 357. The monthly gross and net incomes of mills run on electric power ranged from Rs. 325 to Rs. 540 and Rs. 132 to Rs. 200 respectively. The gross income in both types of the mills included the sum received from selling flour obtained as *kasar* from the customers. It was found in the case of mills run on electric power that they could just meet their expenses and would have obtained no profits, had there been no system of *kasar*.

All the mills remained open for 10 to 12 hours in a day.

Clientele was mainly local. No seasonal variations obtained but on a day preceding a festival and on the day of festival marked increase in clientele was observed.

GOLDSMITHS.

Occupation of goldsmiths at the time of our survey included three district types of establishments viz.: —

(1) Goldsmiths who fashioned gold and silver ornaments from bullion as per order, either of local choksis or local customers or both.

(2) Gold beaters who extracted gold and silver leaves with the help of machines run by electric energy from gold and silver nuggets. Goldsmiths usually went to these establishments to get bullion of their customers beaten into sheets or wires or leaves.

(3) Choksis who sold bullion, gold and silver ornaments and other articles of domestic use such as glasses and bowls, silver frame trays etc. Manufacture of these articles was entrusted to local goldsmiths, who were provided by choksis with the requisite quantity of gold and silver.

There were 30 establishments in gold and silver occupations of which four were in ward A, nine each in wards B and D, two in ward C and six in ward E. No separate numerical classification was available for the above mentioned groups. The total number of persons engaged in this occupation was 47 or 4.1% of the total employment. Our sample consisted of four establishments of which three were goldsmiths proper and one gold beater. The total number of persons engaged in these establishments was six of whom four were owners and two apprentices. Nothing was paid to the latter.

Goldsmiths Proper

All the three establishments were one-man concerns. The artisans included in this group fashioned a variety of gold articles and ornaments, such as gold chains, bangles, rings, strings of beads, earrings etc.

The tools of goldsmiths consisted of an anvil, hammers, bellows, pincers, pair of scissors, wire drawers, a bamboopipe, a shallow earthen jar, a hearth and a small portable wooden box containing weights and scale balance. The value of these tools varied from Rs. 40 to Rs. 50 as against Rs. 15 to Rs. 30 in the year 1901.* A large amount invested usually indicated the existence of more than one set of such tools. The monthly expenditure on establishment ranged from Rs. 22 to Rs. 28; and on raw materials such as nitric acid and polish ranged from 8 annas to Re. 1.

The gross income during the four months of summer ranged from Rs. 720 to Rs. 1,200 and it was almost the same during the remaining 8 months of the year. On an average the monthly net income ranged from Rs. 98 to Rs. 170.

Local population in general and choksis in particular and rural population of Broach district constituted the clientele.

* District Gazetteer of Gujarat; Population — Page: 198.

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GOLDSMITHS.

Goldsmiths proper.

Charges for making a pair of golden bangles varied from Rs. 2 to Rs. 6 according to the complexity of the design ; for a pair of golden earrings from Re. 1 to Rs. 2; for a pair of silver bangles from Re. 1 to Rs. 1-8-0 ; and for anklets from 2 to 4 annas per tola.

Business was universally dull during the monsoon ; it looked up during the winter and reached its peak during the summer which coincided with the marriage season.

Gold beaters.

One establishment in our sample provided employment to 3 persons of whom one was the owner and the rest, apprentices without any salary.

The mechanised equipment of the establishment consisted of two pressing machines, run by electric energy — one for extracting thin sheets from metal and the other for punching any die embossing on the extracted sheets. The establishment had 300 dies, the price of which varied from Rs. 80 to Rs. 300 per piece. However, when the vogue in designs of particular dies changed, they were sold away at a fairly low price.

Amount of capital investment was Rs. 4,500 which was borrowed at 6½% rate of interest. Of these Rs. 2,000 were repaid.

The monthly expenditures on establishment and electric power for running a machine were Rs. 28 and Rs. 15 or 31.4% and 18.2% respectively of the total expenses.

The yearly expenditures on repairs and revonation and on interest on borrowed capital were Rs. 400 and Rs. 160 or 37% and 13.4% respectively of the total expenditure. On an average the monthly net income was Rs. 160.

Charges for extracting sheets and for embossing dies on it were respectively one anna per tola of gold and 6 pice per tola of silver.

The process of extracting leaves and embossing dies on it was as follows. The metal, either gold or silver, is first pressed into plain thin sheet of the required size and is then put in a die embossing machine to have the impressions of design embossed on the sheet.

The clientele was composed of local and rural goldsmiths.

Seasonal fluctuations in incomes were the same as in those of goldsmiths.

LAUNDRIES.

There were 22 laundries in the town, of which six were in ward A, seven in ward B, four each in wards C and D and one in ward E. The occupation provided employment to 25 persons. Laundry business was run entirely by owners and their family members. However, the figures of family members working in the occupation were not available.

Laundries in Broach had two distinct types of customers, (1) casual and (2) permanent. The former gave clothes for washing occasionally and were charged for each piece of garment. The latter

LAUNDRIES.

were permanent customers who paid a fixed sum for every hundred clothes washed and ironed. For this type of customers laundries maintained a home-delivery service.

Washing charges for a piece of cotton garment varied from one anna to one and a half annas; for silk and woollen garments from 12 annas to 1 rupee. Washing charges for 100 pieces of clothes, (cotton, silk and woollen) varied from Rs. 7 to Rs. 10 as against Rs. 3 to Rs. 6 in the year 1901.*

Four laundries in our sample provided employment to 20 persons of whom ten were men, eight women and two boys. No hired employees were maintained by any of these laundries. The monthly expenses on rent, electricity etc., ranged from Rs. 6-4-0 to Rs. 12; on materials required for washing, from Rs. 10 to Rs. 109. On an average about 80% of the expenses were incurred on raw materials and 20% on establishment.

The monthly gross income varied from Rs. 70 to Rs. 300 and net income, from Rs. 52 to Rs. 184.

The raw materials consisted of coal, soap, carbonate of soda, indigo and firewood, which were purchased from the local market.

Initial capital investment was one or two tables, one or two cupboards, one or two chairs and one or two irons the price of which varied from Rs. 100 to Rs. 200.

Washed and ironed clothes, except in monsoon, were delivered after seven days.

CYCLE REPAIRING AND HIRING.

Of the sixteen cycle repairing establishments in the town, seven were in ward A, two in ward B, three in ward D and six in ward E. No establishment was there in ward C. The total number of persons engaged in the occupation was 19. Owners of these establishments derived their means of livelihood mainly from giving bicycles on hire at a fixed rate per hour. Besides, they also undertook the work of repairing bicycles and selling accessories and parts. Ancillary to cycle repairing and cycle hiring, was the business of giving gas lamps on hire for marriage processions, public functions etc.

Four establishments in our sample offered employment to ten persons of whom seven were owners and their family members and the rest, employees. Of these establishments, three maintained hired employees. Wages of the employees ranged from Rs. 15 to Rs. 30 per month or 20% to 27.2% of the total expenses.

Of the four establishments, three were housed in rented premises and one in an owned building. Expenses on rent, electricity etc., in the former type of establishment ranged from Rs. 14 to Rs. 24 per month or 21.8% to 27.5% of the total expenses. In the latter

* Gazetteer of the Bombay Presidency Vol. IX part I — Gujarat population page — 229.

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Other Occupations.

type it was Rs. 78 per year (inclusive of building tax) or 18.4% of the total expenses.

CYCLE REPAIRING AND HIRING.

Four establishments had respectively 13, 10, 8 and 6 bicycles. Expenditure incurred on repairing damaged bicycles ranged from Rs. 30 toRs. 54 per month or 49.5% to 79% of the total expenses.

Expenses on raw materials such as puncture solution, puncture roll and spare parts varied from Re. 1 to Rs. 2-8-0 per month or 0.4% to 2.6% of the total expenses (the expenses relate to raw materials purchased for repairing bicycles of outsiders and not the owner's).

The monthly gross income from all sources varied from Rs. 135 to Rs. 240 and the net income from Rs. 71 to Rs. 130.

The initial capital invested in bicycles, furniture and cycle repairing instruments ranged from Rs. 650 to Rs. 1,500. Most of the bicycles in all the four establishments were purchased second-hand. Life of a cycle was put at about 5 years.

New bicycles were hired out at 4 annas per hour, and old ones at 2 annas per hour.

Working hours were 8 A. M. to 9 P. M. with one hour recess in the noon.

Summer was the brisk season.

BAKERIES.

There were 12 bakeries in the town, of which one was in ward A, two in ward B, three in ward D and six in ward E. Total number of persons engaged in the occupation was 23.

Two establishments in our sample provided employment to 8 persons of whom 5 were owners and their family members and the rest, employees. Among the former, one was a boy. Of the remaining seven including five owners and two employees, two were skilled workers engaged in the manufacture of pastry and one was a salesman. Wages of the skilled employees ranged from Rs. 36 to Rs. 60 per month. Total wage bills in the two establishments were about Rs. 60 and Rs. 76 per month, respectively

Expenditures incurred by the two establishments on rent, electricity etc. were about Rs. 9 and Rs. 16 respectively per month.

Expenses of the two establishments on raw materials were Rs. 508 and Rs. 747 respectively per month. The raw materials consisted of wheat flour *(mendo)*, sugar, salt, oil, hydrogenated oil, firewood, essence, and o fhop flowers to control fermentation. All the commodities were purchased locally.

The following table shows percentage of expenses on various items in the two establishments :—

Percentage on establishment.	*Percentage on wages.*	*Percentage on raw materials.*	*Total.*
2.0	9.0	89	100
1 7	10.3	88	100

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Other Occupations.

BAKERIES.

The monthly gross incomes were Rs. 750 and Rs. 1,050 and net incomes Rs. 173 and Rs. 211 respectively.

Both the establishments manufactured and sold biscuits of various types and bread. The price of biscuits ranged from As. 12 to Re. 1 per lb; and that of bread was 6 pice for a 5 ounce loaf.

The mechanical equipment consisted of ovens, trays, moulds etc. Besides this, a few utensils and two tables were also required in running the business. The capital invested in both the establishments was Rs. 500 each.

Clientele was composed of the local and rural population of Broach taluka.

Summer was the brisk season.

TINSMITHS.

There were 11 establishments of tinsmiths in the town of which four were in ward B, one each in wards C and D and five in ward E. The total number of persons employed in these establishments was 11.

The sample consisted of two establishments of which one was in ward B and the other in ward D. The total number of persons engaged in the two establishments was two.

The necessary equipment consisted of a few implements, namely, hammer, anvils, two or three pairs of scissors, forge etc. The cost of equipment ranged from Rs. 50 to Rs. 75. The raw materials required for the running of occupation were mainly galvanised iron sheets, kerosene, sulphuric acid, tin, coal etc. The exact quantity or value of raw materials used by each of the tinsmiths was not ascertainable. However, the rough estimate of value given by them ranged from Rs. 15 to Rs. 20 per month.

The rents paid by the two establishments were Rs. 9 and Rs. 20 respectively. The monthly net income ranged from Rs. 60 to Rs. 100.

Both the establishments not only undertook the work of mending the tinning of vessels but also manufactured tins, buckets, barrels and *Saghadies* (an iron cylinder with a crate in the middle to suspend coal and an adjustable small window to supply oxygen).

MANUFACTURERS AND REPAIRERS OF MUSICAL INSTRUMENTS.

According to the Census of Establishments, there were three establishments of manufacturers and repairers of musical instruments providing employment to four persons. All of them were situated in ward A.

The primary source of income of these establishments was etc. However, they also undertook the manufacture of harmoniums, etc. However, they also undertook the manufacture of harmonium, mostly to order.

One establishment in our sample provided employment to two

CHAPTER 10. Other Occupations. MANUFACTURERS AND REPAIRERS OF MUSICAL INSTRUMENTS.

persons of whom one was owner and the other an employee, who was paid Rs. 60 per month.

Of the total expenses 8% was on establishment; 32.6% on raw materials; and 59.4% on wages.

The raw materials consisted of celluloid, iron and brass wires, leather, wood, french polish etc.

The establishment was selling 12 harmoniums per year. The price of harmonium played by hands alone (*hath peti*) ranged from Rs. 75 to Rs. 250 and that of one played both by hands and legs (*pag peti*) ranged from Rs. 200 to Rs. 400.

The sum obtained from repairing work under taken was not available.

February to May was a brisk season.

SUJANI.

Since ancient times Broach is well-known for her Sujani industry. The Sujani is a cotton quilt of 6½'×4½' with square of about ¼" over it. Within each square is inserted cotton. The squares are alternately of deep blue and white colour. However, red colour is sometimes substituted for deep blue.

The industry now is in a decaying condition because of lack of demand for the product. The Bombay Economic and Industrial Survey Committee of 1938-40 reported that "there are only three families of artisans engaged in this industry at Broach". Referring further to the income of these artisans the Committee observed that "one of the artisans gets an income of about Rs. 30 per month while the other gets about Rs. 15 per month". Decline in demand for this product was attributed by the Committee to "the imports of cheap rugs and blankets from Japan".

At the time of our survey also three families were engaged in this industry of which one was investigated. Seven persons of the family were engaged in the making of sujanis; of them four were men and three, women.

The mechanical equipment consisted of pit looms, *lari*, *firkies* or pullies, *ferni*, *katalu* or shuttle etc. The cost of equipment was about Rs. 200. All the tools were manufactured by local carpenters. The quantity and price of raw materials required for making one piece of sujani were as follows :—

Name of the raw material.	Quantity required	Price per Unit	Total cost
60 No. double yarn.	1¼ lbs.	Rs. 5 per lbs	Rs. 6-4-0
20 No. single yarn.	1¼ lbs.	Rs. 1-11 per lb.	Rs. 2-2-0
Cotton.	2½ lbs.	Rs. 2- 8 per lb.	Rs. 6-4-0
			Rs. 14-10-0

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SUJANI.

Besides the above cost, dyeing of No. 60 double yarn cost 15 annas at the rate of 12 annas per lb. Hence the total cost of making one sujani was Rs. 15-8-0. It was sold at Rs. 20 per piece.

Because of the lack of demand, though the family in our sample had the capacity to produce 12 pieces per month, they produced 8 pieces only.

The monthly net income of the family from selling of Sujani was Rs. 36. The family got its livelihood from the retail sale of handloom and mill cloth.

Eight hours were required for making a sujani. At a time two persons worked on looms.

Clientele was mainly from Broach and Surat districts.

PROFESSIONS.

ADMINISTRATION.

Before giving a detailed description of persons engaged in public administration and various professions, a few general observations are necessary.

For the purpose of comparison, figures are extracted from six decennial censuses, viz., 1881, 1901, 1911, 1921, 1931 and 1951. However, the 1951 Census is strictly not comparable with the previous censuses, for in the year 1949 boundaries of Broach district were more than doubled as a result of merger of the former Rajpipla State in the Broach district.*

The term public administration in all the censuses implied persons engaged in Government service—national, provincial (now State), and the former native States — irrespective of the nature of their work, together with persons employed in municipal and oher local bodies. Included within this group were also personnel of armed forces. Further, an account of the following professions has been given :—

(1) legal (2) medical (3) pedagogy (4) religion and (5) arts, letters and science; sub-classification of each of these professions has been given in their respective tables.

The following table gives the total number of persons engaged in public administration and in various professions mentioned above, together with percentage rise and fall in their number. For the purposes of comparison, here as elsewhere, unless otherwise stated, the year 1881 has been taken as a base year.

* In the year 1881 area under the jurisdiction of the Broach district was 1,453 square miles ; in the year 1901, 1,467 sq. miles ; in the year 1911 to 1931, 1,468 sq. miles ; and in the year 1951 it was 2,934.2 sq. miles.

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ADMINISTRATION.

Year.	Total number of persons engaged.	Percentage rise (+) or fall (—) in employment.
1881	8,478	—
1901	8,014	— 5.5
1911	10,983	+29.0
1921	7,837	— 7.6
1931	5,154	—39.3
1951	11,129	+31.2

It is evident from the table that while the years 1901, 1921 and 1931 showed a decline in the number of persons engaged in public administration and various professions, the years 1911 and 1951 showed a marked increase. However, figures for the year 1951 are not comparable with the previous years for the reason mentioned above. The sharp decline in the year 1931 may probably be attributed, partly to the world-wide depression of thirties, and partly to an all-round underestimation of figures.

While during the period 1881 to 1931 the population of Broach district rose by 2.2%, the percentage of population engaged in public administration and various professions to the total population remained more or less constant, with a slight increase in the year 1911 and slight fall in the year 1931, as is evident from the following table.

Ratio of men and women engaged in public administration and professions to the total population.

Year.	*Men.*	*Women.*	*Total.*
1881	2.543	0.05	2.593
1901	2.561	0.185	2.746
1911	3.226	0.354	3.580
1921	2.336	0.210	2.546
1931	1.495	0.047	1.542
1951	1.466	0.110	1.576

Public Administration and Public Force.—Under the term "Public Administration." the censuses broadly include persons engaged in services of the State-national, provincial (now State) and the former Native States, persons in employment of municipalities and other local bodies and village officials other than watchmen. The term "Public Force" includes personnel of defence force — army, navy and air — police and village watchmen. Persons following learned profession like medicine, law and teaching, even though employed by Government, are not included in this class, but are returned under their respective appropriate heads. While the censuses of 1881 and 1901 return army and navy under "Public Force", the censuses of

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1911, 1921 and 1931 return, in addition to army and navy, police and village watchmen under "Public Force". The 1881 census returns village officials and watchmen under the head "Persons engaged in the General or Local Government of the country". Most of these village officials and watchmen were not full-time servants of Government and they had to fall back upon agriculture for their maintenance. The 1901 census returns police under the head 'Civil Service of the State:'

The following table gives the number of persons deriving their principal means of livelihood from Public Administration and Public Force.

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ADMINISTRATION.

TABLE No. 3

NUMBER OF PERSONS DERIVING PRINCIPAL MEANS OF LIVELIHOOD FROM PUBLIC ADMINISTRATION AND PUBLIC FORCE.

Sub-groups	1881			1901			1911			1921			1931			1951*		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1. Service of the State	6433†	—	6433	1928	7	1935'	919	32	951	796	24	820	1719	9	1728	5127	227	5354∴
2. Service of foreign and former native states	—	—	—	14	—	14	125	3	128	56	7	63	47	22	69	—	—	—
3. Municipal and other local services	171	44	215	148	14	162	563	209	772	285	33	318	194	22	216	205	109	314
4. Village officials other than watchmen . . .	—	—	—	3146	167	3313"	4633	343	4976	2371	106	2477	50	5	55	176	—	176"
5. Police	416	—	416	—	--	—	575	1	576	505	10	515	616	2	618	1238	24	1262
6. Village Watchmen .	—	—	—	—	—	—	—	—		85	—	85	40	—	40	—	—	—
7. Army	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	
8. Native State Army ..	—	—	—	—	—	—	—	—	—	—	—	—	20	—	20	—	—	—
9. Navy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10. Air Force	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . ..	7020	44	7064	5236	188	5424	6815	588	7403	4099	180	4279	2686	60	2746	6746	360	7106

* The figures relate to merged area also

† The figures include village officials, servants and watchmen.

' The figures include Police, Messengers, Warders etc.

∴ The figures presumably include persons employed in Army, Navy, and Air Force.

" The absence of village watchmen is inexplicable.

ADMINISTRATION.

The table reveals that the number of persons engaged in public Admanistration and Public Force declined in the years 1901, 1921 and 1931 and rose in the years 1911 and 1951. The decline in the said years was by 24%, 40% and 61% respectively while the rise was by 4% and 0.5% respectively. However, if account is taken of the fact that boundaries of the Broach district had more than doubled in the year 1951, rise in the number of persons engaged in public administration and public force can be considered as negligible; actually there might not have been any rise but even a decline.

The sharp fall in the number of village officials and village watchmen in the year 1931 is inexplicable. The emoluments, terms of service, methods of recruitment, with regard to the Government servants were uniform throughout the State of Bombay and were governed by the rules and regulations of the Government of Bombay. But municipalities and other local bodies have got their respective rules and regulations of service under the supervision of the State Government.

RELIGION.

Religion:—The following table gives the number of persons deriving their principal means of livelihood from activities concerned with religion:—

CHAPTER 10.

Other Occupations.
RELIGION.

TABLE No. 4

NUMBER OF PERSONS ENGAGED IN RELIGIOUS PERFORMANCES.

Sub-groups	1881			1901			1911			1921			1931			1951*		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1. Priest, ministrants etc.	25	–	25	1026	270	1296	270	40	310	130	20	150	15	—	15	623	75	698†
2. Religious mendicants, Inmates of monastenies etc	NA	NA	—	—	—	—	864	248	1112	1333	277	1610	1126	18	1144	—	—	—
3. Catechists reader, church and Mission service etc	NA	NA	—	11	—	11	44	2	46	11	2	13	—	—	—	—	—	—
4. Temple burial or burning ground Pilgrim conductors etc	252	47	299	12	1	13	478	77	555	8	0	8	13	3	16	487	11	498
Total	N A.	N A	324	1049	271	1320	1656	367	2023	1482	299	1781	1154	21	1175	1110	86	1196

* The figures relate also to the former Nandod or Rajpipla State.

† The figures include persons coming under the classification 2 and 3.

RELIGION.

They are mainly divided into four classes, viz., (1) priests and ministries (2) religious mendicants and inmates of monasteries (3) catechists or missionaries and (4) persons engaged in burial services.

The table reveals that there has been a continuous increase in the number of persons engaged in religious performances. In the year 1901 the increase was by 307%, in 1911 by 524%, in 1921 by 449%, in 1931 by 262% and in 1951 by 269%.

ARTS, LETTERS AND SCIENCES.

Arts, Letters and Sciences:—All the censuses return a small number of persons, under "Arts, Letters and Science". A heterogeneous group of persons is included under this category — musicians, singers, dancers, actors, authors, editors, journalists, architects, surveyors, engineers, astrologers, sculptors, image makers, scientists etc. The following table gives the number of persons engaged in the above-mentioned professions included in the group of 'Arts Letters and Science'.

CHAPTER 10.

Other Occupations.

ARTS, LETTERS AND SCIENCES.

TABLE No. 5

NUMBER OF PERSONS ENGAGED IN ARTS, LETTERS AND SCIENCE.

Sub-groups	1881			1901			1911			1921			1931			1951		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1. Musicians, singers, dancers, actors etc.	365	25	390	173	1	174	342	14	356	130	3	133	123	8	131	154	6	160*
2. Architects, engineers, surveyers, astronomers, metorologists, botanists, etc.	20	—	20	59	—	59	89	3	92†	68	5	73†	4	—	4‡	—	—	—
3. Public scribes, stenographers, accountants, auditors etc.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2
4. Authors, artist, astrologers, editors and journalists	2	1	3	38	—	38	41	—	41§	22	1	23§	12	—	12**	1	—	1÷
5. Image makers, photographers, sculptors, acrobats, exhibitors of curiosities and wild animals etc.	—	—	—	2	—	2	—	—	—	42	5	47	7	—	7	49	—	49
Total	387	26	413	272	1	273	472	17	489	262	14	276	146	8	154	206	6	212

* The figures include persons employed in recreation services, manager and employees of cinemas conjurers and acrobats.

† The figures relate only to architect, engineers, surveyors and their employees

‡ The figures relate only to astronomers, botanists and meteorologists. There were no architects, surveyers and engineers.

§ The figures include photographers, sculptors, astronomers, meteorologists, botanists etc.

** The figures include photographers.

÷ The figures exclude artists and astrologers.

CHAPTER 10.

Other Occupations,

MEDICAL.

Medical Profession:—Medical profession has brought larger and larger number of persons in its fold as is evident from the following table:—

TABLE No. 6

NUMBER OF PERSONS ENGAGED IN MEDICAL PROFESSION.

Occupation.	1881			1901			1911			1921			1931			1951		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1. Practitioner with diploma, degree, licence or certificate	96	3	99*	51	—	51	134	5	139†	220	30	250	154	8	162‡	260	3	263
2. Practitioner without diploma, licence etc.	—	—	—	92	7	99	—	—	—	—	—	—	13	—	13	18	—	18
3. Dentists	—	—	—	—	—	—	—	—	—	—	—	—	—	5	5	—	—	—
4. Oculists	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5. Vaccinators	—	—	—	4	—	4	—	—	—	—	—	—	—	—	—	5	—	5
6. Midwives	—	34	34	—	22	22	—	—	—	—	—	—	—	—	—	—	—	—
7. Compounders, matrons, nurses, dispensing service, etc. ..	—	—	—	43	18	61	26	24	50§	19	24	43§	18	12	30§	85	11	96
8. Hospital and health service employees	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	69	77
Total . ..	96	37	133	190	47	237	160	29	189	239	54	293	185	25	210	376	83	459

* The figures include unlicensed practitioners.
† The figures include unlicensed practitioners, dentists, oculists and veterinary surgeons.
‡ The figures include oculists.
§ The figures include midwives, vaccinators.

CHAPTER 10.

Other Occupations.

MEDICAL.

The table reveals that since the year 1881 there has been a continuous increase in number of persons engaged in the medical profession. However, decade-wise comparison shows that there was a decline in the number of persons engaged in the medical profession in the years 1911 and 1931.

Even though the number of women engaged in the profession has increased absolutely from the year 1881 (except 1911 and 1931), it has declined relatively as is evident from the following table:—

TABLE No. 7

PERCENTAGE OF MEN AND WOMEN ENGAGED IN MEDICAL PROFESSION TO TOTAL NUMBER OF PERSONS ENGAGED IN THE SAME PROFESSION.

Year.	*Men.*	*Women.*	*Total.*
1881	72.2	27.8	100
1901	80.2	19.8	100
1911	84.7	15.3	100
1921	81.6	18.4	100
1931	88.0	12.0	100
1951	82.4	17.6	100

Besides registered medical practitioners, *vaids, hakims,* nurses and compounders, the census of 1951 recorded 77 persons as "hospital and health service employees" of whom 69 were women.

In the years 1912 and 1938 Medical Acts were passed to regulate the healing art. By the former Act (Medical Act VI of 1912) registration of qualified allopathic medical practitioners was made compulsory. By the latter Act (The Bombay Medical Practitioners Act, XXVI of 1938) registration of practitioners of Indian system of medicine was made compulsory. Under this Act, no one who was not registered as medical practitioner either under the Bombay Medical Act of 1912 or the Bombay Medical Practitioners Act of 1938, could practise the healing art.

LEGAL.

Legal:—The profession includes practising lawyers, their clerks, and petition writers. The census of 1881 included Kazis in the legal profession. The census of 1901 included law agents, Mukhatiaras and stamp vendors in the legal profession.

The following table gives the number of persons deriving their principal means of livelihood from the legal profession:—

TABLE No. 8

NUMBER OF PERSONS ENGAGED IN LEGAL PROFESSION.

Occupation.	1881			1901			1911			1921			1931			1951		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1. Lawyers of all kinds ..	62	—	62	48	—	48	63	1	64	82	2	84*	53	—	53*	90	1	91
2. Lawyers' Clerks, article clerks, petition writers etc. ..	—	—	—	17	—	17	55	1	56	134	3	137	8	—	8	7	—	7
3. Law agents and mukhatiars	—	—	—	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—
4. Kazis	72	—	72	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
5. Stamp Vendors	—	—	—	18	—	18	—	—	—	—	—	—	—	—	—	—	—	—
Total ..	134	—	134	87	—	87	118	2	120	216	5	221	61	—	61	97	1	98

* The figures include law agents, mukhatiars and kazis.

CHAPTER 10.

Other Occupations.

LEGAL.

In the year 1953 there were 94 lawyers in the district of whom 85 were pleaders and 9 advocates. There was not a single woman lawyer in the district. Of the 94 lawyers 47 were residing and practising in the town of Broach; 14 in Jambusar; 15 in Rajpipla; 7 in Ankleshwar; and 11 in Jhagadia.

Following is the list of courts in the district of Broach in the year 1953:—

1. Court of the District and Sessions Judge, Broach.
2. Court of the Civil Judge, Junior Division, Broach.
3. Court of the Civil Judge, Junior Division and Judicial Magistrate, First Class, Ankleshwar.
4. Court of the Civil Judge, Junior Division and Judicial Magistrate, First Class, Jambusar.
5. Court of the Civil Judge, Junior Division and Judicial Magistrate, First Class, Rajpipla.
6. Court of the Civil Judge, Junior Division and Judicial Magistrate, First Class, Jhagadia.
7. Court of the Judicial Magistrate, First Class, Broach.
8. Court of the Additional Judicial Magistrate, First Class, Broach.
9. Court of the Judicial Magistrate, First Class, Ankleshwar.

PEDAGOGY.

Pedagogy:—The teaching profession has attracted larger and larger number of persons as is evident from the table No. 9 and Table No. 10.

CHAPTER 10.

Other Occupations.
PEDAGOGY.

TABLE No. 9

NUMBER OF PERSONS ENGAGED IN PEDAGOGY.

Sub-groups	1881			1901			1911			1921			1931			1951*		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Male	Female	Total	Males	Females	Total
1. Principals, Professors and teachers	401	9	410	638	33	671	675	84	759†	802	88	890	767	41	808	1824	301	2125
2. Clerks and servants connected with education	—	—	—	—	—	—	—	—	—	92	5	97	—	—	—	6	4	10
3. Administrative and inspecting officials	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
Total ..	401	9	410	640	33	673	675	84	759	894	93	987	767	41	808	1830	305	2135

* The figures relate to the former Nandod or Rajpipla state also.
† The figures include clerks and servants connected with education.

TABLE No. 10

TABLE SHOWING NUMBER OF SCHOOLS AND COLLEGES TOGETHER WITH THE STRENGTH OF THE STAFF IN THE DISTRICT OF BROACH IN THE YEAR 1953.

Types of school or college	Total number of schools or colleges	Number of schools and colleges in the municipal limits					Total number of teachers			Total number of teachers in the municipal limits		
		Broach	Ankleshwar	Jambusar	Rajpipla	Total	Male	Female	Total	Male	Female	Total
1. Primary schools .	645	23	7	8	5	43	1544	264	1808	237	145	382
2. Middle schools	6	NA	NA	NA	NA	NA	26	—	26	—	—	—
3. Secondary schools .. .	19	5	1	1	2	9	283	2	305	NA	NA	NA
4. Training colleges . .	4	NA	NA	NA	NA	NA	20	4	24	NA	NA	NA
5. Vocational and technical Schools	—	—	—	—	—	—	—	—	—	—	—	—
6. Special schools	10	—	—	—	—	—	14	15	29	—	—	—
Total	684	—	—	—	—	—	1887	305	2192	—	—	—

CHAPTER 10.

Other Occupations.

PEDAGOGY.

Taking the year 1881 as the base, the number of persons engaged in the teaching profession increased by 64% in the year 1901; by 85% in the year 1911; by 140.7% in the year 1921; by 97% in the year 1931 and by 420% in the year 1951.

It is also evident from the table that an increased number of women are engaged in the teaching profession. The following table gives the ratio of men to women teachers for years 1881 to 1953 :—

Year.	*Percentage of Male teachers.*	*Percentage of women teachers.*
1881	98	2
1901	95	5
1911	89	11
1921	90	9.4
1931	95.0	5.0
1951	85.8	14.2
1953	86.1	13.9

Table No. 10 gives the total number of schools and colleges together with the strength of the staff in the year 1953.

Of the 645 primary schools 3 were managed by Government; 23 by municipalities; 561 by local bodies and 58 by other private agencies. Salaries of the primary school teachers were uniform throughout the district. Basic scales of pay of trained and untrained primary school teachers were Rs. 40-1-50-1½-65-S.G.-2½-90 and Rs. 35-1-40 pectively. In addition to the basic pay they were getting dearness allowance at the Government rate. Trained primary teachers holding S. S. C. or Matriculation certificate before 30-6-1953 were getting a special additional pay of Rs. 10 per month.

Minimum essential qualification for the post of a primary school teacher was the Primary School Certificate.

Six middle schools in the district employed 26 persons in 1953.

Nineteen secondary schools provided employment to 305 teachers of whom 283 were men and 22, women. Basic scale, of pay of trained and untrained teachers in secondary school were Rs. 80-2-200 and Rs. 70-2-74 respectively. In addition to the basic pay they were getting Rs. 45 per month as dearness allowance. However, the basic pay scale for an untrained teacher in a Government secondary school was Rs. 70-2-140. Minimum essential qualification for the post of a secondary school teacher was a degree of a recognised university or any special qualification.

In 1953, there were four training colleges of which one was exclusively for women. It provided employment to 24 persons of whom 20 were men and 4, women.

There were 10 special schools providing employment to 29 persons of whom 14 were men and 15, women. Of the 10 special schools five including those for women, were for adults and imparted instruction in sewing, tailoring, drawing and embroidery; three imparted instruction in physical education and the remaining two were pre-primary schools imparting instruction to children below school-going age.

CHAPTER 11—STANDARD OF LIFE.

Standard of Life.

THE PRECEDING CHAPTERS have described the main aspects of the economy of Broach district. It would enable the reader to have a broad idea of the nature of the productive resources and of the employment pattern offered by them. On those resources and their exploitation depend the amount of the average annual income of an ordinary family whether in rural or in urban areas and the amenities of life within the reach of its members.

The general economic and social well-being of a people is reflected in the level of income and the material benefits which a family derives from it and also to some extent in its expenditure pattern. For, a family may be taken to be the basic economic unit and the general conditions of its living are an indication of social and economic advancement of the community, the standard of life being a resultant of two forces, viz., the total income a family earns and the total expenditure it has to meet. The starting point of any attempt to asses the standard of life is to probe into the budgets of a few typical families. It is the family budget that gives an idea of its earnings as well as its expenditure. The various aspects of the economy of this district have been described in earlier chapters and it is against that background that the investigations contained in this chapter have to be read.

RURAL AREAS.

According to the 1951 census, Broach district has an area of 2,934.2 square miles and a population of 7,06,035 of whom nearly 85% reside in the rural area and are mainly dependent on agriculture for their livelihood and 15% in the urban area. The rural population of nearly 6 lakhs is spread over 1180 villages, while the urban population of slightly more than one lakh inhabits seven towns. There are geographic and climatic variations in the three main regions of the district, namely, the coastal belt, the alluvial plains in the centre and the hill areas of Rajpipla: they condition the economy of the district to a large extent. But by and large the pattern and mode of life of different sectors of the community may be considered to be the same in all the areas of the district, though the central plain, on account of its rich non-food crops like cotton, enjoys greater prosperity and has opportunities for industrial and commercial employment.

In any country, conditions in urban areas are to some extent different from those in rural areas. The ways of life in a village, with

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its comparative isolation and predominantly agricultural character are not the same as those to which people living in towns and pursuing vocations like industry, trade or service have to be and are accustomed. Hence, while judging the standard of life of an average resident of the district, it is desirable to deal separately with those who live in rural areas and those who live in towns.

In this district a. in almost all districts of India, agriculture is the main vocation of the people and a very large majority of the population is engaged in it. Broadly, cultivators can be classified into different strata according to the size of the holdings they cultivate and the income they derive from the cultivation. All the land which they cultivate may not be owned by them. Some of it may belong to others and may be taken up by them for cultivation on a tenancy basis. From the economic point of view what matters is not ownership, but the extent of a holding and the income that accrues from it.

Some other factors have also to be taken into account while considering this question. In the first place, in spite of the general prevalence of money economy, several barter transactions in agricultural produce do take place in rural areas and though it is possible to evaluate them in terms of money, their economic significance cannot be fully brought out in such a calculation. Secondly, almost all classes, in one capacity or other, are connected with the cultivation of land. Either as landlords or as tenants, or as hereditary village servants claiming a legal or customary share in the produce of the field, a large section of the village population has a share in the produce of the field. On the other hand, almost all farmers supplement their main business of farming by some other subsidiary occupation, either in the village itself or away from it. Some families regularly or occasionally get help from some of their members employed in cities. However, in spite of these factors, assessment of income can only be based on its main source viz., the occupation concerned and the following description may be taken to convey a general but fairly correct outline of the economic picture.

A small survey of a few families in the following villages of the district was carried out in 1953-54 and the account given below is based on the material that was available from the survey.

No.	Villages	Taluka	Population.
	I Eastern portion with hilly topography.		
1.	Garudeshvar	Nandod	732
2.	Dediapada	Dediapada	618
3.	Deshad	Valia	911
	II Western portion with coastal belt.		
4.	Tankari	Jambusar	1754
5.	Dahej	Vagra	2239
6.	Balota	Hansot	749

No.	Villages.	Taluka.	Population.
	III Central belt.		
7.	Avidha	Jhagadia	2969
8.	Panoli	Ankleshvar	1678
9.	Diva	Ankleshvar	4026
10.	Pariej	Broach	1685

Big farmers.

What may be described as the top stratum of the village community consists of the bigger cultivators whose holdings are fairly substantial[1] and who would therefore require a large number of implements and more than a pair of bullocks to carry on agricultural operations. The actual number of acres being cultivated by persons who fall in this category will not be the same in all cases. In the ten samples of big cultivators selected, the average size of the holding per family came to about 56.5 acres. All the land cultivated by such farmers belonged to the family. It is customary to express the size of the farming business in terms of the number of working bullocks maintained by the farmer. If the holding happens to be in a rich region like the central belt, a smaller number of acres will be required to engage fully two pairs of bullocks than the number which will be required for soils situated in less fortunate regions. Without, therefore, going into any elaborate or precise analysis of the size of the individual holdings, the bigger cultivators referred to above may be taken to be an agriculturist who possesses more than one pair of working bullocks. The average number of bullocks per family as revealed by the survey came to over 5. In addition to bullocks, each family had an average of 4 other animals — cows, buffaloes and at least one horse.

The average size of the family came to about nine in the ten samples selected. Usually two full time servants, one male and the other female, were attached to each family. Such servants, usually husband and wife, stayed in huts constructed on the landlord's fields. Generally the grown-up girls and boys of this class of families received education in nearby cities and towns and were away for at least nine months of the year. It was found that this class of cultivators generally happened to have rather a big family, most of the adult male members of which, except those who were receiving education or were employed elsewhere were engaged in agricultural operations on the family fields and found it convenient to stay together.

Out of the total number of members of all the ten families, each consisting on an average of nine members, there were in all ten earners and nine earning dependents. Hence the average came to one earner and one earning dependent per family. Out of the nine earning dependents, only one was employed in a non-agricultural

1 The position of these classes will be considerably affected by the recent tenancy legislation.

CHAPTER 11. — Standard of Life. RURAL AREAS.

occupation. The economic responsibility for the maintenance of the family unit largely devolved upon the shoulders of the male members, the contribution of women and children towards the family income being nil.

The average income of a family derived almost entirely from the farm land, came to about Rs. 6,481 per year. Out of this amount, Rs. 440 were spent every year on clothing, about Rs. 315 on repairs to house and implements, about Rs. 420 on charity and pilgrimages, about Rs. 420 on social and religious customs like birth, death, marriage, sacred thread ceremony etc., about Rs. 170 on medical care and about Rs. 200 on land revenue. Thus, the total annual average expenditure on these major items came to Rs. 1,965. The monthly expenditure on an average worked out at Rs. 235 on cereals, pulses, milk, ghee, fruit, vegetables, tea, oil, spices, pan, tobacco etc., Rs. 27 on fuel and lighting, Rs. 42 on servants (excluding free meals and free residence) and Rs. 54 on miscellaneous things like toilet, *dhobi*, barber, entertainment, education, travelling etc. Hence the total monthly expenditure worked out to Rs. 358. This together with the annual expenditure on major items worked out to the total expenditure of Rs. 6,261 per annum leaving a net annual saving of about Rs. 220. The figures revealed that this top class was on a much higher plane of living in this district than is generally the case in other districts. This was due largely to the prevalence of cash crops like cotton, groundnuts, tobacco etc. But the number of such families in this comparatively happy position was not large, and their standard of living cannot be taken as typical of the village as a whole.

Medium Cultivators.

Below the top stratum and comprising a considerable sector of the population engaged in agriculture comes what may broadly be described as the agricultural middle class or the peasantry. It consists of cultivators, cultivating holdings of medium size whether owned by them entirely or partly and partly tenanted by them. They may have anything between 10 to 30 acres of land for cultivation and though on account of this variation, there may be perceptible differences in the incomes of particular families, the pattern of their economic life is more or less similar. Out of the ten samples of medium class cultivators surveyed, the average size of the family holdings came to 26 acres, each family possessing three bullocks and four other cattle.

The average size of the family came to about eight. As in the case of big cultivators, one full time servant was engaged by each family. The grown-up boys and girls took education upto the secondary stage and only a few families could afford to give college education to their children. Most of the adult members, including women were engaged in agricultural operations on the family fields.

In the ten samples surveyed, there were ten earners, nine earning dependents and 64 dependents. Out of the ten earners,two were engaged in non-agricultural subsidiary occupations, while out of 9 earning

dependents, only one was engaged in a non-agricultural occupation. Though the economic responsibility for the maintenance of the family devolved upon the male members, the contribution of women and children towards the family income was considerable in this class, unlike the top class of cultivators.

Out of the ten samples selected, six were in debt to the extent of an average of Rs. 1500 each. A noticeable feature was the source from which the cultivators took loans. The cooperative society and not the moneylender was the agency through which most of the cultivators availed themselves of credit facilities.

The average income of the family, derived almost entirely from the farm land, came to Rs. 3156 per annum. The income earned by women and children could not be precisely ascertained but it was surmised to be anything between Rs. 500 to Rs. 800 for a year. Out of this about Rs. 324 were spent every year on clothing, about Rs. 281 on repairs to home and implements and on hay and fodder, about Rs. 195 on charity and pilgrimages, about Rs. 175 on social and religious customs like birth, death, marriage, sacred thread ceremony etc., about Rs. 84 on medical care and about Rs. 100 on land revenue. Thus the total annual average expenditure on these major items came to Rs. 1159. The monthly expenditure on an average worked out at Rs. 151 on cereals, pulses, milk, ghee, fruits, vegetables, tea, oil, spices, pan, tobacco etc., Rs. 17 on fuel and lighting, Rs. 27 on servants (excluding free meals and free residence) and Rs. 30 on miscellaneous things like toilet, *dhobi*, barber, entertainment, education, travelling etc. Thus the total monthly expenditure worked out to Rs. 225. This together with the annual expenditure on major items worked out to a total expenditure of Rs. 3859 leaving a net annual deficit of about Rs. 703. It was presumably met out of the income earned by women and children and also in some measure by cutting down expenditure on elastic wants like social customs, pilgrimages etc.

The prosperity or otherwise of this middle class of rural peasantry, just marginally balancing their budgets, depends almost entirely upon good or bad monsoons. A little encouragement by way of rise in food prices or cash crops is immediately reflected in the economic position of this class; it helps in wiping out their marginal debts. On the other hand even a little worsening of their position by way of agricululral depression adds a lot to their difficulties by producing an adverse effect on their annual finances.

Tenant Cultivators.

Just above the lowest rung of the agricultural ladder stood, when our survey was conducted, the class of rural peasantry, consisting of tenant cultivators.[1] Though recent land legislation has given them security and ownership rights the positive steps taken by government towards improving their condition, such as long-term financing, ir-

[1] All tenants have become owners as a result of recent legislation.

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Tenant Cultivators.

rigation, seed supply, co-operative development etc. will take some time to raise their standard of living. This class also includes peasants who possess land varying from one to five acres. The actual number of acres being cultivated by persons who fall in this category varies from 5 to 15 acres.

The average size of a family of this class as revealed by the ten samples of tenant cultivators selected for investigation came to 5 persons, a considerably smaller family than that of big and medium cultivators. Each family had a pair of bullocks in addition to 4 other cattle. It was also found that all tenant cultivators did not possess all necessary agricultural implements. Housing accommodation depicted a terrible picture of most unhygienic surroundings, as human beings, cattle, hay and fodder, and agricultural implements were all housed under the same roof. Unlike big and medium cultivators, houses possessed by this class are *katcha* houses.

The total number of members of the ten families, each having on an average five members, was made up of ten earners, five earning dependents and 33 dependents. All earning dependents were engaged in the same or in allied agricultural pursuits. It must, however, be remembered that though the economic responsibility for the maintenance of the family unit devolved on the shoulders of the male members, the womenfolk and children of such families had to work compulsorily on farms, either their own or belonging to others. The earnings of women and children are rarely included in the declared income of the family, which as a rule is the income of the head of the family. The apparent paradox of earning below the cost of subsistence and absence of obvious and acute privation is to be explained by these supplementary earnings, which are important but small and intermittent. They do not remove but only mitigate what is obviously a condition of acute poverty. Most of the adult male members are generally literate, whereas all adult female members are illiterate. Children receive only primary education.

Out of ten families surveyed, eight were found in debt, the total amount of debt being Rs. 13,745. The other two families were just marginally carrying on. The average income of the family derived from farm lands and other allied agricultural pursuits came to Rs. 1248 per annum. Out of this about Rs. 224 were spent every year on clothing, about Rs. 112 on repairs to house and implements and hay and fodder, about Rs. 52 on charity and pilgrimages, about Rs. 94 on social and religious customs like birth, death, marriage, sacred thread ceremony etc. and about Rs. 30 on medical care. Thus the total average annual expenditure came to Rs. 512. The monthly expenditure on an average worked out at Rs. 75 on cereals, pulses, milk, ghee, fruits, vegetables, oil, spices, tea, tobacco etc. Rs. 9 on fuel and lighting, Rs. 4 on servants and Rs. 6 on miscellaneous things like toilet, *dhobi*, barber, entertainment, education, travelling etc. Hence, the total monthly expenditure came to Rs. 94 or yearly

Rs. 1128. This together with the expenditure on major items came to Rs. 1640. Thus, there was a deficit of Rs. 392 per year. This did not include the main item of expenditure for a tenant-cultivator, namely the rent that he paid for the land he cultivated. If we make a provision of Rs. 300 per annum either in cash or kind for this item, the annual deficit came to about Rs. 700 per annum, an alarming sum for a family having an income of Rs. 1248 only. As explained earlier, the labour of women and children supplemented the family income, though it is not included in the earning of the head of the family. A large part of the deficit was usually met out of this addition. If any deficit still remained, it was either carried on as a debt or resulted in cutting down expenditure on elastic wants.

Landless Labourers.

At the lowest rung of the agricultural ladder stands the landless labourer. He has no farms, no agricultural or milch cattle and makes his living by hiring out his labour in return for wages, paid generally not in cash but in kind. It may be added that there may be some labourers, who may technically be described as landholders because they own land. But the extent of the land they own may be so small and the income they derive from it so meagre that for all practical purposes they may be taken to be as good as landless, because the main occupation which gives them a living is the hiring out of their labour for wages.

The family of such a labourer is generally small, consisting of about four to five persons. He owns a house which is only a tiny, dilapidated and flimsy hut but is constructed on land which belongs to some big or medium cultivator under whom he works throughout the year. Such labourers as well as their womenfolk are illeterate. The latter also do hired manual work to add to the family income. The children go to primary schools only.

The agricultural labourer has no possessions of value. As his bare, immediate needs are hardly satisfied, there is no scope for such possessions. Often he does not possess even the basic agricultural implements required for his physical labour e.g. a spade, an axe, a pick, a scythe and a hoe. He has no means of diversion or entertainment. Beyond the bare minimum of religiously or traditionally essential ornaments of married women made up of brass or tin and in very rare cases of silver, the family has no valuables. Clothing is very scanty and often consists of worn-out clothes of landlords on whose fields they work. Food for an adult male member is provided by the landlord if he is working as a permanent 'chakar' at the latter's place. The kitchen and dining equipment of the family is principally made up of earthen or tin vessels, with only a few metal vessels for water storage and cooking.

The average annual income from all sources hardly exceeds Rs. 500 per family. It is indeed difficult to speak of a regular family budget of these people. In most cases, their wage is in kind rather than in cash. Clothing is provided by the landlord on whose

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farm the labourer works. His wife gets two pieces of bajra or jowar bread and some cooked vegetable if she is employed by some landlord or artisan for household work.

The tenor of their life varies from season to season. The busy agricultural season means more or less enough food for them, as this is mostly supplied in kind by the employer. During the non-harvesting seasons when agricultural employment is meagre, landless labourers have to take *'dana'* and cash, popularly known as 'Khoraki' which he has to return to his employer during the harvesting season by way of physical labour. Milk and ghee, toilet, entertainment etc. do not enter into the family budget; provision for oil, sugar and vegetables is very poor. While the days of good employment may appear as days of extravagence, they are rare and the normal picture is one of enforced idleness and want. Conditions in irrigated tracts apart, in the district as a whole the agricultural labourer seems to get much less than what is necessary to keep him in a state of physical efficiency throughout the year. This is due not to low payment — the concentrated character of demand for his labour ensures a fair rate — but to the lack of regular employment throughout the year. This poverty breeds stagnation and a fatalistic outlook on life.

Village Artisans.

The village artisans, who are still, to a large extent, treated as servants of the village community and are remunerated by the "harat" system, form an important class by themselves. The main components of this class are *sutar* (carpenter), *luhar* (blacksmith). *mochi* (cobbler), *kumbhar* (potter), *darji* (tailor) and *hajam* (barber). The system of 'harat' is rapidly declining throughout the villages of Gujarat. The families of this class are medium sized; the average number of members of the ten families of artisans surveyed came to six. Some of these artisans know how to read and write but their womenfolk are generally illiterate.

Most of the artisans own houses which are big enough to provide room for carrying on their occupation and for keeping the instruments and equipment necessary for it and to accommodate all the members of the family. They possess the instruments of their respective trades. Some of them own pieces of land also. Out of the ten families surveyed, four pursued agriculture as a subsidiary occupation. Some of the families kept bullocks and even a cow or a buffalo.

The following family budget figures were an average of those of the ten families of artisans surveyed. The annual average income of such families was Rs. 1064. Out of this, about Rs. 206 were spent on clothing, about Rs. 84 on charity and pilgrimages, about Rs. 52 on social and religious customs, about Rs. 30 on medical care and about Rs. 124 on repairs to house and instruments of respective professions, interest payments etc. This expenditure totals upto Rs. 496. Every month the family spent on an average Rs. 59 on cereals, pulses and other food articles, Rs. 6 on fuel and lighting and Rs. 15 on

miscellaneous things like education, toilet, servant's and barber's charges. This monthly expenditure of Rs. 80 together with annual expenditure of Rs. 496 on rather major items works up the total of Rs. 1,456 leaving a gap of Rs. 392. It was met out of income derived from small bits of land owned by them or from pursuit of minor subsidiary occupation. Out of the ten families surveyed, five were found having an average debt of Rs. 640 per family.

Employment for these artisans is generally seasonal. Monsoon is the slack season in which unemployment or underemployment is intense. This, coupled with relatively low rates of remuneration, accounts for the meagre earnings of this class.

Traders.

Traders form another distinct social group in the village. It should, however be emphasised that the size of business of traders in different villages and of even traders in the same villages varies greatly. All villages having a population of not less than 1000 have at least one village grocer. The number is larger if the village is a big market place or trade centre.

The typical village trader is often a trinity of seller, buyer and money-lender. The agricultural bias of the rural economy has largely been responsible for this combination of functions. The trader lends money on credit to the cultivators and realises it during the harvests. At the harvesting season many a transaction takes place in kind; the trader may purchase the agricultural produce of the village and sell it to an urban merchant. The big traders earn incomes sometimes comparable to those of substantial cultivators.

More often than not, traders in the villages of Broach district belong to an immigrant community. viz. Lohana *banias* of Kutch. They follow their own social customs and visit their native places once in two or three years to attend social ceremonies like marriage etc. But they observe local social customs also. The education of grown-up members of the family is mostly confined to a few standards of the primary school plus a practical knowledge of accounts. Majority of women of this class are literate and help the menfolk in their business.

The size of the family in this class is medium, three to four adult units. Near relations live or work together; they have sometimes a net-work of small shops in nearby villages. Virtual memberships of the family is conferred on trusted servants in a few cases. Some of these traders own milch cattle but not agricultural cattle. Those who possess agricultural land have a pair of bullocks.

The budgets of such traders show generally more or less adequate provision for all main items of expenditure. The following average budget of some grocer families surveyed in the ten villages of the district may be said to indicate the income and expenditure pattern of this class of traders.

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The grocer's invesment in his business is about Rs. 2000 and he replenishes his stocks monthly or sometimes weekly as the need and extent of turnover require. The annual average income of such traders comes to Rs. 2300. Out of this total about Rs. 215 are spent every year on clothing, about Rs. 138 on charities and social and religious observances, about Rs. 52 on medical care, about Rs. 79 on travelling incidental to his trade and about Rs. 127 on guests and miscellaneous things. Two additional types of expenditure figure in the trader's budget; firstly on travelling incidental to his business and secondly for entertaining guests. But he has not to incur any expenditure on repair to house and implements, land revenue, hay and fodder etc. which figures prominently in a cultivator's budget. The total annual expenditure as narrated above comes to about Rs. 611. The monthly expenditure on an average works out at Rs. 85 on food articles, about Rs. 12 on fuel and lighting and about Rs. 26 on non-consumption articles such as education, servants, toilet etc. Thus the total expenditure works out at Rs. 2087 in all, leaving a net saving of about Rs. 213 per annum per family.

CONCLUSION.

The preceding analysis of the family budgets of some families representing different economic classes in the village, may be said to present, though not in strictly accurate statistical terms, a broad picture of the rural levels of living.

It will be clear that except for the small minority of big cultivators and traders, the majority of the population lives not much above the margin of subsistence and some at times even below that margin. The landless labourer and the petty landholder, who has practically to become a wage-earner most of the time, seem to be often in a precarious condition. They form a substantial portion of the community and there is no doubt that with better opportunities of employment in the planned economic development of the country and with better methods of farming there will be some improvements in their condition. The medium-size cultivator may be in a slightly better position. Even in his case, however, the line of demarcation between balancing the budget and falling into a deficit is thin and once the balance is upset and indebtedness starts, the financial *malaise* goes on deepening with very disastrous result. The same is true of artisans. It will be noticed that, except in the case of families of big cultivators and traders, the proportion of non-consumption expenditure to total income, which can be considered as a barometer for studynig the planes of living, is very inadequate. Food alone takes up about 70 per cent or even more of the income. Not much is therefore left for aquiring other amenities which are an essential part of civilised life.

URBAN AREAS.

It has already been mentioned that about a lakh and quarter persons in Broach district live in urban areas consisting of seven towns. A town in the census is a place with a population of 5,000 and above exhibiting urban characteristics. Out of these, only four towns, viz., Ankleshwar, Broach, Jambusar and Rajpipla

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have municipalities. Broach city was however selected for urban survey.

Population is, however, not altogether a sufficient criterion for distinguishing an urban area from a rural one. This can be seen from the fact that some places classed as towns have characteristics not diffrent from those of villages. (These characteristics are economic and are given by livelihood classes.) The village or the rural area is associated with a predominently agricultural population and the urban area with non-agricultural. In determining urban areas, both the criteria viz. population and composition of livelihood classes should be applied. Viewed this way, not all towns listed in the census reports would constitute urban areas. Only Broach can be considered as an industrial urben area and Ankleshwar as a commercial urben centre as it is a junction on the Ankleshwar-Rajpipla Line of the Western Railway and the only entrepot of forest products of the merged Rajpipla State. The existence of other towns has been mainly a result of the location in them of some Government offices and some educational institutions. Rajpipla, like several towns of Saurashtra, is a town because it was the capital of the old princely State of Rajpipla.

The increases that have occurred during the war and post-war period in the prices of various articles of daily consumption including housing accommodation have not affected the urban and the rural areas to the same degree Even after making allowance for certain articles that are sold dearer in villages than in towns, it remains broadly true that the cost of living in a town is somewhat higher than in a village. The development of quick transport in the countryside has indeed in many places tended to reduce the differences in prices of a number of articles between the villages and the towns which are well connected by means of transport. Mention may be made of articles like milk, milk products, and vegetables produced in villages but sold with very small price differences in the towns nearby. But as one goes into the interior, the differences in the prices of such articles become apparent and their effects on the standard of life of the population living in the urban and rural areas are pronounced.

Particular reference may be made to housing accommodation. In most of the towns, the number of houses has not increased commensurately with the growth of population during the last decade. The five towns of the then Broach district viz. Amod, Ankleshvar, Broach, Hansot, Jambusar, in 1931 had 16,864 occupied houses whereas the same five towns in 1951 census show the number as 15,210 indicating a definite tendency of declining number of houses with increasing population. Rents have, as a result, increased considerably and there is overcrowding in many cases. By no means is the situation in the villages in this respect as acute as in the towns and this difference in costs of housing affects materially the standard of living of the people in urban areas.

Unskilled Labour.

The class of unskilled labourers represents the lowest rung of occupational hierarchy in towns. It includes various types of labour

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for which usually an urban centre offers opportunities of employment. Many of the schedules prepared for this class of families could not specify any one kind of labour but reported only manual labour or 'Majuri' as their means of livelihood. This may be so for the reason that there was no kind of assured and continuous employment available to this class and it frequently changed during the years and even seasons. The schedules which indicated specified labour mentioned work in the fields and manufacturing establishments, wood cutting, cart driving, house construction, *hamali* and miscellaneous domestic work.

As most of the members of such families seek work outside their homes, their incomes vary according to the size of the families. The schedules showed large variations in income ranging from Rs. 25 to Rs. 75 per month, the families earning higher income invariably showing more earning members. Allowing for personal factors such as intelligence, health and industrious habits of a family, where only husband and wife work, the income may be around Rs. 60 and where only one member works, it may be around Rs. 40 per month.

Any kind of property, agricultural land or house is ruled out for these families. The size of the families is generally large. All the members of the family have to live in small *katcha* huts which are generally constructed with earth and cowdung and therefore are very vulnerable to heavy rains and other natural calamities. The living conditions of this class of families are most unhygienic.

It is very difficult to represent the family budget of such families. The possibilities of employment depend upon seasons, the monsoon being the slackest. The head of the family may get food in certain types of occupations like woodcutting or work in restaurants and eating houses. Women of this class generally work part time in different families for doing household work and may get cooked food from such families. So the expenditure on food, the most important item in the family budget of lower income groups, becomes completely misleading. Clothing is also another such item. Members of such families often wear old clothes given to them by their masters with whom they work. House rent forms an important item of expenditure in the family budgets. Expenditure on medical care, education and recreation is negligible in most cases. This class together with their rural counterpart viz., landless labourers represents those millions of India who live in conditions of great poverty.

Skilled Labour.

Skilled labour is represented by the numerous classes of artisans. The schedules prepared for this class covered a wide variety of them: barber, cobbler, *dhobi*, carpenter, tailor, goldsmith etc. The incomes of these classes varied widely from Rs. 90 to Rs. 200 a month. Though the inflow of income is irregular, this class is better off than unskilled workers as their labour is much in demand. Except in the monsoon, they get employment throughout the year and in brisk seasons like the marriage season they earn double of what they ordinarily earn. Contrary to other classes in the city, a negligible number of families in this class are found in debt.

Women of these families, except those belonging to families of low income, did not seek work outside home. The size of the family of this class presented a pattern quite different from that of the class of unskilled labour. In addition to husband, wife and four childeren, an old parent or some other relative appeared in many families. Several among them owned the house they lived in. Most of the persons of this class received elementary education in addition to their apprenticeship in the respective professions. Children of this class generally do not go for higher education and follow their own hereditary occupation.

In the following table are given two family budgets of income groups varying from Rs. 125 to Rs. 175 a month.

TABLE No. 1

No.	Items	*Dhobi*	Tailor
		Rs.	Rs.
1.	Food	25-0-0	22-0-0
2.	Milk and Ghee	7-8-0	18-0-0
3.	Edible oils	7-8-0	10-0-0
4.	Gul and Sugar	7-8-0	10-0-0
5.	Fruits, vegetables, meat, eggs	22-8-0	15-0-0
6.	Fuel and lighting	5-0-0	17-0-0
7.	Toilet	5-0-0	7-0-0
8.	Tea, Coffee etc.	12-0-0	5-0-0
9.	Clothing	20-0-0	16-0-0
10.	Housing	owned	owned
11.	Personal services	2-0-0	10-0-0
12.	Medical care	6-0-0	12-0-0
13.	Education and Reading	--	2-0-0
14.	Amusement-Recreation	1-0-0	2-0-0
15.	Conveyance and Travelling	--	--
16.	Ceremonials and charities	8-0-0	9-0-0
	Total	129-0-0	155-0-0

The family earning Rs. 125/- a month was that of a *dhobi*. It consisted of husband, wife, four children all below 12 and a brother aged 40. The family was staying in the same house in which the shop was maintained. It was his own house and he was paying house-taxes from rent received from the tenant staying on the upper floor of the house. He had no furniture except a cupboard put in the rear portion of his shop. The expenditure as revealed by the table exceeds income by a margin of Rs. 4 a month.

The head of the family with an income of Rs. 175 a month was a tailor. He was the holder of a diploma in tailoring. The members

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of the family included husband, wife, four children all below 12 and parents of the head of the family. This family owned two *pucca* houses in Broach city. Municipal taxes were paid and occasional expenditure for repairs to the house once or twice in a decade was met out of the rents received from the rented house. Tailoring has proved to be a much successful profession in most of the urban centres. Earning during the marriage season was almost double the income earned during other months. This family had a fairly decent standard of living and a surplus of Rs. 20 a month.

The Clerical and the Professional Class

The clerical and professional class includes the lower and middle strata of salaried persons employed in Government or private offices, schools and some professional men like doctors and lawyers. The incomes of this class vary from Rs. 100 to Rs. 300 per month. Possession of some landed property or houses in rural areas to which they belong is more frequent in this class than in the class of skilled labourers or small traders. The size of the family is generally larger in this class than in the others mentioned above. Families of this class have a regular monthly income which is just enough to keep them above physical want but is not enough to enable them to enjov the pleasures of life.

The household equipment of the families of this class may be described as adequate to give fair comfort Usually brass utensils are several in number. Bedding consists of mattresses, cotton and woollen blankets, shawls and occasionally hold-all too. Some crockery, furniture, a timepiece and even a radio set and a bicycle are among the possessions. As valuable possessions, some gold ornaments and silk clothes both for men and women are common. Possession of some silver or stainless steel utensils like plates, *attardani, gulabdani*, drinking vessels is also noticed frequently.

The expenditure of two families belonging to this class having monthly incomes varying from Rs. 175 to Rs. 300 is described below.

The first family which had a monthly income of Rs. 175 consisted of two adult members and four children all of whom were under 12. The expenditure for the month was Rs. 159. Hence this family had a surplus of Rs. 16 per month. The expenditure shown in the "housing" column for this family consisted of house-taxes, as the family was staying in its own house. The break-up of the family budget is given in table No. 2.

The second family which had a monthly income of Rs. 300 was that of a doctor and consisted of two adult members and three children, two above and one below 12. Its expenditure for the month was Rs. 276. In addition to his professional earnings he was receiving Rs. 400 from landed property and Rs. 500 from house rent per annum. Thus this family had a saving of Rs. 100 per month. The expenditure shown in the "housing" column for this family consisted of house taxes, as the family was staying in their own house. The break-up of the family budget is given in table No. 2.

TABLE No. 2

No.	Items	Teacher	Doctor
		Rs.	Rs.
1.	Food	20-0-0	35-0-0
2.	Milk and Ghee	12-0-0	42-0-0
3.	Edible oils	8-0-0	7-0-0
4.	Gul and Sugar	10-0-0	10-0-0
5.	Fruits, Vegetables, eggs, meat etc.	15-0-0	30-0-0
6.	Fuel and lighting	14-0-0	14-0-0
7.	Toilet	10-0-0	3-0-0
8.	Tea, Coffee etc.	4-0-0	15-0-0
9.	Clothing	20-0-0	40-0-0
10.	Housing	10-0-0 (owned)	10-0-0 (owned)
11.	Personal services	12-0-0	10-0-0
12.	Medical care	8-0-0	17-0-0
13.	Education and Reading	3-0-0	13-0-0
14.	Amusement and Recreation	5-0-0	2-0-0
15.	Conveyance and travelling	—	20-0-0
16.	Ceremonies and Charities	8-0-0	8-0-0
	Total...	159-0-0	276-0-0

The small Traders.

Although traders as a whole can be easily grouped in a class, it is difficult to draw the line between big and small traders. Any such attempt must contain a large element of arbitrariness. The small traders here are those who earn a monthly income of upto Rs. 300. This demarcation has been made on the strength of personal observation of the general level of incomes in the towns in the district and no statistical data regarding distribution of income have been collected to arrive at this figure.

The variations of incomes below the limit of Rs. 300, as the schedules collected show, were quite large. The petty grocer at a street corner may earn Rs. 75 to Rs. 100 per month. Moreover traders earning incomes at different levels upto Rs. 300 could also be seen. This is only to be expected in an occupation like trading.

The traders in the schedules collected included those who dealt in grocery, cloth, stationery, oil, fuel, pan-bidi, medical stores and optical goods. Most of them had some property, mostly land, houses and precious ornaments. At the higher levels of income, the families tended to be larger showing brothers and other dependant relatives who were working as assistants in the profession followed by the head of such family.

The average number of members in a family of a small trader is five or six, equivalent to about four adult units. As a rule, this

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class has only male earning members, usually one per family. Children are schooling. Thus, on the income side, no assistance is forthcoming from either women or children and on the expenditure side the education of children looms large as an important item.

The following table (No. 3) gives the expenditure of two families, each earning a monthly income of Rs. 97 and Rs. 300; it will show the expenditure pattern of the petty and of comparatively well-off traders.

TABLE No. 3

No.	Items of Expenditure	Kiryana Merchan	Dealer in Hardware and Colours,
		Rs.	Rs.
1.	Food	25-0-0	35-0-0
2.	Milk and Ghee	15-0-0	30-0-0
3.	Edible oils	10-0-0	5-0-0
4.	Gul and Sugar	8-0-0	8-0-0
5.	Vegetables, fruits, eggs, meat, fish etc.	10-0-0	30-0-0
6.	Fuel and lighting	10-0-0	10-0-0
7.	Toilet	2-0-0	5-0-0
8.	Tea, Coffee, Panbidi etc.	5-0-0	8-0-0
9.	Clothing	15-0-0	30-0-0
10.	Housing	(owned)	16-0-0
11.	Personal Services	—	3-0-0
12.	Medical care	6-0-0	4-0-0
13.	Education and Reading	3-0-0	12-0-0
14.	Amusement and Recreation	1-0-0	3-0-0
15.	Conveyance and Travelling	—	8-0-0
16.	Ceremonies and Charities	4-0-0	8-0-0
	Total...	114-0-0	215-0-0

The head of the family with an income of Rs. 97 was a *kiryana* merchant. He had invested Rs. 1,000 in his shop. Both residential and business premises were located in the same house. Besides several utensils of brass and copper and crockery, the house was furnished with a cot, a table and three trunks. His wife possessed gold bangles and some silver ornaments. The merchant had no woollen or silk clothes but his wife possessed three silk saries.

The family consisted of husband, wife and four children one above and three below 12. The family possessed a house and was getting an income of Rs. 12 per month from the rented portion of it. This budget also revealed a deficit of Rs. 17 per month. Every year this *kiryana* merchant had to take a loan during the slack season i.e., monsoon, which he was able to repay in the brisk season, i.e., summer.

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The family representing the upper class amongst the small traders and earning an income of Rs. 300 per month was dealing in hardware and colours. It consisted of husband, wife and five children, three of them above 12. All the children except one were taking primary or secondary education. The family budget revealed that a greater proportion of expenditure, than in the case of the other families was devoted to non-consumption goods. In addition to all the household furniture generally possessed by a well-to-do middle class family, he possessed a bicycle and a radio set. The family had a monthly saving of Rs. 85.

The well to do and the rich.

The well-to-do and the rich classes are composed of persons in business and professions and high salaried officials. No upper limit, of course, can be fixed for the families of this class but a lower limit of Rs. 300 a month may be assumed to be appropriate in the conditions of Broach. Except where the size of the family is very large, families earning around even this lower limit may normally be said to lead a fairly comfortable life and to be able to save something for exigencies. As incomes increase, it is not so much the expenditure on articles of daily consumption that increases, but it is the expenditure on articles of luxury or display or expenditure incurred in the acquisition of houses, gold ornaments etc. The well-to-do and the rich classes can be easily distinguished firstly from the type of houses they live in and the household equipment, and secondly from their higher expenditure on certain items of daily consumption. The household equipment generally includes costly furniture, chinese crockery, radios or gramophones, costly clothes and ornaments. Items on which higher amounts are spent are generally milk, vegetables, education and entertainment. Employment of a full time servant for domestic work is another feature which distinguishes the well-to-do and the rich from other families. What generally distinguishes the richer classes from the well-to-do is expenditure on more costly comforts like motor cars and spacious houses and more costly luxuries which have considerable ostentation value.

An interesting feature that was revealed by these schedules was the small amount of money spent on entertainment. It was generally Rs. 5 to Rs. 10 per month. It may be noted, however, that the schedules did not show periodical expenditure incurred by the families and in many cases such expenditure amounts to substantial sums. Travel, marriages and other ceremonies are some of the items where expenditure is subject to wide variations.

The expenditure pattern of two families, one of a pleader and the other of a high salaried government official having a monthly

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income of Rs. 491 and Rs. 395 respectively is given in table 4 below :

TABLE No. 4

No.	Items of Expenditure	Pleader	Govt. official
1.	Food	35-0-0	20-0-0
2.	Milk and Ghee	50-0-0	50-0-0
3.	Edible oils	10-0-0	3-0-0
4.	Gul and Sugar	8-0-0	8-0-0
5.	Vegetables, fruits, eggs, meat, fish etc.	45-0-0	22-0-0
6.	Fuel and lighting	29-0-0	21-0-0
7.	Toilet	15-0-0	8-0 0
8.	Tea, Coffee, Panbidi	10-0-0	11-0-0
9.	Clothing	60-0-0	50-0-0
10.	Housing	23-0-0	15-0-0
11.	Personal services	27-0-0	15-0-0
12.	Medical care	15-0-0	15-0-0
13.	Education and Reading	100-0-0	8-0-0
14.	Amusement and Recreation	6-0-0	5-0-0
15.	Conveyance and travelling	15-0-0	25-0-0
16.	Ceremonies and Charities	23-0-0	20-0-0
	Total..	471-0-0	296-0-0

The family having an income of Rs, 491 was composed of husband, wife, two brothers and mother. The head of the family had a joint landed property of 36 acres. He also owned four *pucca* houses outside Broach. Deducting land revenue and house taxes, he was getting an income of Rs. 1,500 per annum from his property. His brother was taking college education. Hence, his budget showed an unusual expenditure on education amounting to Rs. 1,000 per annum in addition to his own expenditure on law books and magazines amounting to Rs. 200 per annum. With a substantial amount of expenditure on non-consumption goods, the family budget showed a saving of about Rs. 1,740 per annum.

The second budget is that of a high salaried Government official. His family was composed of husband, wife and two daughters. Both his daughters were taking education. He had a *pucca* house at his native place. After meeting all his expenditure, he had a saving of Rs. 99 per month.

Standard of Life.

The expenditure of the rich families does not generally show a material increase on items listed in the schedules over that of the well-to-do except on a few here and there. The variation is likely to be observed in periodical expenditure and on household equipment.

CONCLUSION.

The urban area thus presents a picture of all the socially significant sections of the population from the unskilled labourer who forms the lowest rung of society to the well-to-do and the rich. Though it would be hazardous to generalise on the basis of this scanty data, a general trend can be indicated. The prospects of further urbanisation and industrialisation are discussed in another chapter.[1] The increased earnings due to implementation of various Government schemes may increase the demand for consumer goods of low consumption groups. When it is a question of spending a little more to gain some comforts suited for a particular standard or of foregoing some comforts to have a little more saving, the trend today is to prefer the former to the latter. This has been more pronounced in the urban areas. It may be added that with the provision of increasing facilities in a Welfare State for such essentials of life as education, sanitation, medical help and housing, even families of low income groups may be expected to have a slightly better standard of living than that warranted by their meagre earning.

1 Chapter 12. Economic Prospects.

Economic Prospects.

CHAPTER 12—ECONOMIC PROSPECTS

ALTHOUGH NATURAL RESOURCES AND HUMAN EFFORTS ultimately condition economic development in any region, the course as well as the pace of that development are influenced to a considerable extent by other factors also. For example, growth of transport facilities and communications throughout the country has made a district an integral part of a market which is as big as the country itself and the availability of resources may be governed by forces of supply and demand operating for the whole country. On the other hand, as a result of economic planning which has now been accepted by Government as a vital policy to be put into effect, a district which may have remained backward or under developed for certain reasons may be transformed into a granary by a specially vigorous stimulus to its agricultural development or into a centre of industrial activity by the location of factories in its area and the resultant urbanisation. Adequate capital in which many a district is generally deficient may be supplied by organised agencies outside. Although such factors cannot be easily foreseen, the economic prospects of a district have to be considered to some extent in the context of economic conditions of the country.

AGRICULTURAL PROGRESS.

Broach district, although predominantly agricultural like most other districts, is quite advanced in commerce and has some inherent advantages for industrialsation. Greater progress of the district may be recorded both in industry and trade in future, leading to greater economic prosperity on the whole. However, an appreciable increase in the incomes of a majority of the people will depend on the course of improvements in the field of agriculture. Several agrarian reforms have been introduced by the State Government the effects of which will be seen only in course of time. These measures are largely intended to alter suitably the existing institutional framework which imposes several handicaps on the human agency. The removal of these handicaps will enable the latter to put in the maximum effort; but even this effort can bear fruit only if certain other conditions which are very important, are satisfied.

Agricultural production can increase either by extension of land under cultivation, or by intensive cultivation of the existing land under the plough. The latter is possible if water supply is assured and if the technique of cultivation is improved. On the first count, the district does not hold out much promise. Already 55% of the land is under cultivation and any substantial addition to it does not

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seem possible in normal circumstances. Nearly 11% of the area of the district is under forest and that cannot be diverted to cultivation, because forests have their own utility. A good deal of land is under grazing and pastures and is not likely to yield crops if put to cultivation. The district does not have a large amount of culturable waste land. On the other hand, there is much scope for intensive cultivation. The most essential needs for intensive cultivation are an assured and adequate supply of water and better seed, implements and manures. The district is not so badly placed in respect of water; what it requires is the proper harnessing of the sources. Four perennial rivers traverse the district but they are not of much use for irrigation on account of their high banks. Naturally attention has to be paid to minor irrigation works, which would provide adequate water for cultivation. Recently the State Government has embarked upon a plan in this respect and has commenced the work of repairing and desilting existing tanks and wells, construction of new tanks and wells, putting small bunds over rivers and channelising water from rivers with the help of lift irrigation machines. A considerable area is expected to be covered by these sources of irrigation. Mechanical cultivation offers good prospects and considerable areas could be brought under this system. The Department of Agriculture has introduced a number of improved implements and improved varieties of crops in the district. Manure mixtures, chemical fertilisers, and compost manures have come to be extensively used. Efforts are being made to reclaim two lacs acres of land falling in the category of *Khar* lands (salt lands) and considerable areas have been reclaimed. The Agricultural Research Station at Bhuva conducts agricultural research and the results are propagated in the district. Besides, other land improvement schemes are in operation. All these are expected to yield larger agricultural production, though no quantitative forecast can be made at this stage.

Non-food Crops.

The non-food crops enjoy a more important position in the district's agriculture and cotton has contributed most to the agricultural prosperity of the district, which sends large supplies of raw cotton to various textile manufacturing centres of the Bombay State and even to distant places like Kanpur and Ujjain. Cotton of this district, because of its superior quality, finds a ready market and its demand is bound to increase in future along with the increased activity in the sphere of textiles production — both large scale and small scale. Broach itself has a few textile units and a sizable handloom industry. Hence, the district may in course of time be expected to grow that quality of cotton which is now being imported from abroad. Groundnut is another commodity which is likely to be in good demand in future, with the growth of industrialization. It is therefore possible that more and more of land will be brought under these two crops.

Food Crops.

So far as food crops are concerned, the district is not self-sufficient and has to depend upon supplies from other areas. Howsoever much it may like to step up its food production for becoming

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INDUSTRIAL PROGRESS.

Commerce.

self sufficient, it would not be desirable to do that at the cost of cotton, which plays a very important role in the district's economy. It may be cheaper to import food stuffs from outside than to grow less cotton and more food crops.

Commerce, as has been seen in a previous chapter, is largely governed by the cash crops of the district. The volume and direction of trade in these commodities will depend upon their increased production. This can be brought about by the extension of land under these crops. but whether land will be actually brought under these crops will depend largely upon external circumstances. A slump in the cotton textile industry of Bombay or Ahmedabad may discourage production of cotton with the consequent decline in the district's exports.

The industrial products of the district are consumed largely within the district itself and only a small quantity is exported to the neighbouring areas. The handloom industry received some impetus during the Second World War and even later on account of shortage of cloth in the country. But the position has changed of late, and it is very doubtful whether the handloom industry will be able to maintain its markets in the face of competition with the mill products. That it cannot do so has been indicated by the reservation to it of certain kinds of products by a Government decree issued recently, and by the other steps which Government have taken to assist the industry. The district's trade in cloth may not be expected to increase unless there is a substantial increase in production which seem possible if handlooms come to be mechanized.

Both agricultural and commercial prosperity will be assured if certain new industries in the district are established and some of the existing ones are fully mechanized. The prospects in this respect seem to be good. The district has raw materials on which it can base its industries, it can raise capital from its merchant community; and it can avail itself of cheap electrict power from the Bombay Electric Grid scheme.

Spinning Units.

Unless a depression overtakes the cotton textile industry of this State in the near future, establishment of new cotton spinning mills and the mechanization of at least some of the handloom establishments in the district appear probable. The present spinning units are obviously insufficient to meet the requirements of yarn of the handloom industry of the district. It is, however, doubtful whether the handloom industry will be able to maintain the level of its production in view of the difficulties in marketing its products in competition with mill products which are both less costly and superior in texture and finish. The conversion of handloom centres into centres of powerlooms may provide the solution. What seems to have hindered such a process in the past was not merely lack of adequate capital and enterprise but also lack of cheap power. Its non-availability seems also to be the reason for the present units remaining without any addition to them during the last decade. The

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utilisation of power from the Bombay Electric Grid scheme would probably help in this respect. When that happens small power-loom factories may be established which will be provided with yarn by the spinning units. As a result of such a process, the cost of manufacture would be reduced and a variety in design and pattern could be introduced in the products so as to enable them to compete successfully with mill products.

Ginning and Pressing.

Among other large scale industries, those allied to the textile industry, such as cotton ginning and pressing, manufacture of textile spare parts and other auxiliaries, hold good prospects. An expanding textile industry would necessitate a speedy flow of cleaned cotton during the season; and the district's cotton could be speedily ginned and pressed if a larger number of gins and presses are installed in the district. There are at present two establishments which manufacture textile spare parts and leather washers to be used in the textile machinery. There is likely to be a greater demand for these two categories of goods; and considerable possibilities of expansion could be envisaged.

Catechu Manufacture.

Another large scale industry of the district which has good prospects is the catechu manufacturing industry of Rajpipla. Rajpipla jungles abound in *Khair* trees and the industry was started in the regime of the old Rajpipla State. The establishment is the only one of its kind in the whole of the Bombay State. It sends catechu to all parts of India, the demand being greater from Northern India and Bengal. This industry also yields tannin which is used for tanning hides and skins. It is believed that this industry can expand to a considerable extent, if better transportation and marketing facilities are provided to it.

Bidi-making, coir-products and fishing.

Among the other small scale industries, bidi making, coir products, bamboo working, fishing and salt seem to have good prospects.

With the increasing habit of smoking, the bidi making industry seems likely to grow in future. Besides local consumption, it has a good outside demand. The expansion of this industry is an organised manner would not only bring money within the district but would also encourage the cultivation of *bidi* tobacco in the district. Large imports of cocoanuts through Broach port and subsequent re-exports of nuts and harnel after taking away the coir offer a good prospect for making coir products in this district. The forests of the Rajpipla sub-division yield exellent bamboos and baskets and other bomboo products could be manufactured with advantage. If the workers are taught to make articles of furniture, the industry can flourish. Besides, as the district has a big coast line of 55 miles, fishing and salt manufacutre could be developed.

The above mentioned industries are the more important ones. There may be several other lines of production which local enterprise

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may take to with profit. Certain attempts have been made already and though enough progress has not been made in these lines so far, better progress in future may not be ruled out.

The Rajpipla sub-division, especially the Jhagadia taluka, is reported to contain valuable mineral deposits and research is being conducted to explore the possibilities of exploiting them on a commercial scale. Licences have been issued to take out raw iron, calcide, gray and white plastic earth, orchis etc. An *akik* mine has been found in the Jhagadia taluka. In some parts of the district, on the banks of the river Narmada, rock deposits suitable for cement manufacture have been located in abundance. All these mineral deposits, if exploited commercially on a large or small scale, would contribute much towards the economic prosperity of the district.

With increased industrial and commercial activities of the district, some developments in the field of transportation, finance and warehousing are bound to follow.

Trade.

The external trade of the district has been chiefly carried on by land routes. Considerable quantities of goods are imported from Bombay and good quantities of raw cotton are sent out to that city. The cost of transport of goods can be reduced if they can be sent by sea through the Broach port. If that port could be developed, merchandise could be carried by sea to and from Bombay and other coastal ports of Western India and Saurashtra. This would also relieve to some extent the congestion of goods traffic on the railways.

Transport.

The agricultural and forest products of the Rajpipla sub-division have to follow a long combined motor and railway route *via* Ankleshwar to come to Broach and other consuming centres. The division is ill equipped so far as transport facilities are concerned. This increases the cost of transport as well as the time taken in the movement of goods. Turning the present railway track between Rajpipla and Ankleshwar into broad gauge and thus directly connecting it with the main broad gauge line of the Western Railway will be a great facility.

Needs of District.

Better storage facilities and the establishment of warehouses under the licensed warehousing scheme would be a great advantage to growers of agricultural crops and to traders. It would also enable them to have more credit from financing agencies by pledging the goods deposited with those warehouses.

For financing the industrial and trading activities of the district, establishment of the branches of State Bank of India and other commercial banks at all talukas and trade centres would seem to be a natural development.

PART V

PUBLIC ADMINISTRATION

CHAPTER 13—ADMINISTRATIVE STRUCTURE

CHAPTER 13.

Administrative Structure.

INTRODUCTION

PUBLIC ADMINISTRATION IN THE STATE in the last century consisted mostly in providing security of person and property and raising the revenue necessary for the purpose. In other words, Police, Jails and Judiciary representing security, and Land Revenue, Excise, Registration and Stamps representing revenue formed the most important departments of the State. The Public Works Department was the only other branch of sufficient importance, but its activities of construction and maintenance were, apart from roads and irrigation works, confined to buildings required for the departments of Government. With the spread of Western education and the growth of political consciousness in the country, and as a result of the gradual association of a few Indians with some aspects of the work of government the demand arose for the expansion of governmental activities into what were called "nationbuilding" departments, namely Education, Health, Agriculture, Cooperation, etc. In the twenties and thirties of this century, after the introduction of the Montagu-Chelmsord Reforms a greater emphasis came to be laid on the development of these departments. When, as a result of the Government of India Act of 1935, complete popularization of the Provincial Government took place in 1937, the new Government attempted not only to expand the "nation-building" departments but also to take steps in the direction of creating what has now come to be generally described as a welfare State. After the close of World War II and the attainment of independence by India in 1947, an all-out effort is being made to achieve a Welfare State as rapidly as possible and to build up a socially directed economy. The present activities of the State, therefore, require a much more elaborate system than what was felt to be necessary during the nineteenth century.

In the descriptions that follow in this chapter and in chapters 14-18 the departments of the State operating in the Broach district have been grouped into six categories, composed as follows :—

Chapter 13—Administrative Structure.—Land Revenue and General Administration* and Local Self-Government.

Chapter 14—Justice and Peace.—Judiciary, Police, Jails, and Juveniles and Beggars.

* This is composed of the Collector and his subordinate officers.

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Chapter 15—Revenue and Finance.—Land Records, Sales Tax, Registration, Stamps, and Motor Vehicles.

Chapter 16—Developmental Departments.—Agriculture, Veterinary, Forests, Co-operation, Industrial Co-operatives and Village Industries, Industries, Public Works, Fisheries and Road Transport.

Chapter 17—Welfare Departments.—Education, Technical and and Industrial Training, Medical, Public Health, Labour, Prohibition and Excise, Backward Classes, the Charity Commissioner and Community Projects and National Extension Service.

Chapter 18—Miscellaneous Departments—Town Planning and Valuation, Publicity, and Administration of Managed Estates.

LAND REVENUE AND GENERAL ADMINISTRATION.

LAND REVENUE AND GENERAL ADMINISTRATION..

The Broach district formerly consisted of only four talukas and two petas. In August, 1949, portions of the former Rajpipla State, including Sagbara were merged with it and as a result three talukas and two mahals were added to this district. A re-arrangement of the boundaries of various talukas and mahals was also effected in 1950-51. The district now covers an area of 2,934·2 sqare miles and has, according to the census of 1951, a population of 7,06,035. It is divided into two prants comprising seven talukas and four mahals as shown below :—

		Area in sq. miles.	Population (1951 census).
(1) *Broach Prant*—			
(i) Broach Taluka	...	252.7	1,50,678
(ii) Ankleshwar Taluka	...	159.9	62,949
(iii) Vagra Taluka	...	348.0	44,717
(iv) Jambusar Taluka	...	385.9	92,320
(v) Amod Mahal	...	179.5	44,984
(vi) Hansot Mahal	...	154.0	31,950
(2) *Rajpipla Prant*—			
(i) Nandod Taluka	...	436.7	1,00,170
(ii) Dediapada Taluka	...	391.7	30,051
(iii) Jhagadia Taluka	...	313.7	81,201
(iv) Sagbara Mahal	...	127.6	16,884
(v) Valia Mahal	...	184.5	50,131
		2,934,2	7,06,035

Collector.

The Collector is the pivot on which the district administration turns. Not only is he at the head of the Revenue Department in the

1. The area figure of the district of Broach supplied to the Census authorities by the Survey General of India was 2,911.4 Sq. miles. The area figure given by the Census authorities, which are reproduced in this table, are obtained by the Census authorities from the District Inspector of Land Records or from local records.

LAND REVENUE AND GENERAL ADMINISTRATION.

district, but in so far as the needs and exigencies of the district administration are concerned, he is expected to superintend the working of the officers of other departments.

(i) *Revenue:*—The Collector is the costodian of Government property in land (including trees and water) wherever situated, and at the same time the guardian of the interests of members of the public in land in so far as the interests of Government in land have been conceded to them. All land, wherever situated, whether applied to agricultural or other purposes, is liable to payment of land revenue, except when it may be expressly exempted by a special contract (*vide* section 45, Land Revenue Code). Such land revenue is of three kinds: (1) agricultural assessment, (ii) non-agricultural assessment, and (iii) miscellaneous. The Collector's duties are in respect of (a) fixation, (b) collection, and (c) accounting of all such land revenue. The assessment is fixed on each piece of land roughly in proportion to its productivity. This assessment is revised every thirty years, taluka by taluka. A revision survey and settlement is carried out by the Land Records Department before a revision is made, and the Collector is expected to review the settlement reports with great care. The assessment is usually guaranteed against increase for a period of thirty years. Government, however, grants suspensions and remissions in bad seasons as a matter of grace, and the determination of the amount of these suspensions and remissions is in the hands of the Collector. As regards non-agricultural assessment, section 48 of the Land Revenue Code provides for alteration of the agricultural assessment when agriculturally assessed land is used for non-agricultural purpose. In the same way, unassessed land used for a non-agricultural purpose is assessed to non-agricultural rates. All this has to be done by the Collector according to the provisions of the rules under the Land Revenue Code. Miscellaneous land Revenue also has to be fixed by the Collector according to the circumstances of each case, when Government land is temporarily leased. It is also realised by sale of earth, stones, usufruct of trees, etc. on Government land.

The collection of land revenue rests with the Collector, who has to see that the revenue due is recovered punctually and with the minimum of coercion, and that the collections are properly credited and accounted for.

The Collector is further responsible for the collection of fees and taxes under various other Acts, such as the Bombay Irrigation Act (VII of 1899) the Indian Stamp Act (II of 1899), the Indian Court-fees Act (VII of 1870), the Bombay Tolls on Roads and Bridges Act (III of 1875), the Bombay Entertainments Duty Act (I of 1923), and the Bombay Prohibition Act (XXV of 1949). There are also other revenue Acts which contain a provision that dues under them are recoverable as arrears of land revenue, and the Collector and his establishment have to undertake the recovery of such dues when necessary.

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LAND REVENUE AND GENERAL ADMINISTRATION.
Collector.

In regard to the administration of the Forest Act, the ultimate responsibility for the administration of the department, so far as his district is concerned, lies with the Collector, and the Divisional Forest Officer is his assistant for the purpose of that administration, except in matters relating to the technique of forestry.

As regards the Prohibition Act, the Collector has to issue personal permits to liquor and drug addicts and to recover the assessment fees from shops permitted to sell liquor and drugs. The Collector of Broach is the Chairman of the Prohibition Committee of the district. In fact he is the agency through which the Director of Excise and Prohibition arranges to have the policy of the department carried out.

The administration of the Bombay Tenancy and Agricultural Lands Act (LXVII of 1948) rests with the Collector. He is also an appellate authority to hear appeals under the various sections of the Act. The powers of the Collector with regard to the hearing of appeals have been delegated to the Prant Officers who ordinarily hear all the appeals from the orders of mamlatdars, mahalkaris and other officers exercising jurisdiction under the Act.

(ii) *Inams*:—As a legacy of former Governments, alienations of Land revenue have taken place in regard to large areas of land in the district. There are also cash allowances settled under various Acts. It is the duty of the Collector to see that the conditions under which these are continuable are observed and that they are continued only to persons entitled to hold them. Recently, however, the State Government has inaugurated a policy of abolishing these alienations and within a few years almost all lands in the district are expected to be assessed to full land revenue.

In Broach sub division all paragana and kulkarni watans along with the right of service have been abolished with effect from 1st May 1951 by the Bombay Paragana and Kulkarni Watans Abolition Act (LX of 1950). By the Bombay Personal Inams Abolition Act (XLII of 1953) which came into effect on 20th June 1953, all personal inams in Broach sub-division are extinguished in the case of personal inams, consisting of exemption from the payment of land revenue only, either wholly or in part, if the amount of such exemption is or exceeds Rs. 5,000 with effect from the 1st day of August 1953, and in all other cases, with effect from the 1st day of August 1955.

So far as Rajpipla Sub-division is concerned, there were several *jagirs* where alienations of land revenue had taken place in regard to large areas of land. There were also cash allowances settled under the Rajpipla State Rokad Hak Act. Under the Bombay Merged Territories and Areas (Jagir Abolition) Act, 1953 all *jagirs* were abolished, and the right of a jagirdar to recover rent or assessment

of land and to levy any kind of tax, cess, fee, charge or any *hak* and the right of reversion or lapse, if any, vested in a jagirdar, and all other rights of a jagirdary in respect of a jagir village as incidents of jagir were extinguished. All jagir villages were made liable to the payment of land revenue in accordance with the provisions of the Land Revenue Code. Permanent holders under the jagirdar were given occupancy rights on payment to the jagirdar of compensation in a fixed scale according to the nature of the jagir, i.e. proprietory, non-proprietory or life-time. All Jagirs were abolished.

Bombay Talukadari Tenure Abolition Act, 1949:—The Talukdari lands were Amod, Vagra and Jambusar talukas of the district belonging to the Thakors of Amod, Kervada, etc. They comprise three categories of land viz. (1) Udhad Vanta; (2) Rahat Vanta; and (3) Sanadia Vantas. The first two were entered in the Settlement Registers especially prepared for the same and were exempt from the operation of the Record of Rights Act. The last one was treated as personal inam land and the Bombay Personal Inams Abolition Act is applicable to it. There were only three villages which were wholly on Talukdari Tenure and the rest of the Talukdari lands were situated in Khalsa villages in three talukas referred to above. Before the Enactment of the Talukdari Tenure Abolition Act (LXII of 1949) the Talukadars were paying only 'Jama' as land revenue and not full assessment. All Talukdary lands, subject to certain exemptions, were made liable to the payment of full assessment by that Act.

(iii) *Public Utility*:—The Agriculturists' Loans Act (XII of 1884) and the Land Improvement Loans Act (XIX of 1883) regulate the grant of loans to agriculturists at a low rate for financing their operations. The collector has to estimate the needs of his district in accordance with the policy of Government for the time being and in the event of a bad season and to make further demand for as much money as can be usefully lent for the purpose of tiding over the scarcity. He has to take necessary steps for the most advantageous distribution of the amount placed at his disposal and to see that the advances made are recovered at the proper time. The Prant Officers, the Mamlatdars and the Mahalkaris have been delegated powers under the above two Acts for grant of loans as under :—

	Maximum amount of a Tagavi Loan which can be advanced by:—		
	Prant officers.	Mamlatdars.	Mahalkaris.
	Rs.	Rs.	Rs.
1. Agricultural Loans Act ..	1,000/-	200/-	200/-
2. Land Improvement Act ..	2,500/-	1,000/-	1,000/-

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Collector.

The Collector of Broach is the Court of Wards for the estates taken over under management under the Court of Wards Act (I of 1905).

(iv) *Accounts*:—The Collector is in charge of the Treasury and is personally responsible to Government for its general administration, the due accounting of all money received and disbursed, the correctness of treasury returns and the safe custody of the valuables which it contains. In matters of accounts and of audit the Collector (With the Treasury Officer under him) is responsible to the Accountant General, Bombay, whose instructions he has to obey. He does not, however, take part in the daily routine of treasury business. For that work, his delegate and representative is the Treasury Officer.

(v) *Quasi-Judicial Functions in Revenue Matters*:—Among the quasi-judicial functions of the Collector on the revenue side, apart from hearing appeals from the prant officers under the Land Revenue Code and the various other Acts, may be mentioned (i) The revisional powers exercised under section 23 of the Bombay Mamlatdar's Court Act (II of 1906) in respect of Mamlatdar's orders under the Act, (these powers being delegated to the Assistant or Deputy Collector). (ii) the appellate powers under sections 53 and 67 of the Bombay Irrigation Act (VII of 1879) ; (iii) The work which the Collector does in connection with the execution of the Civil Court's deerees ; and (iv) Proceedings and the awards under section II of the Land Acquisition Act (I of 1894). The powers under certain sections of the Land Revenue Code and the Land Revenue Rules have been delegated to the prant officers, the mamlatdars and the mahalkaris.

(vi) *Local Self-Government*:—In all cases in which the power of passing orders in matters affecting local bodies rests with the Director of Local Authorities or Government, the proposals are either made by the Collector or are received by the Director of Local Authorities with the Collector's remarks.* The various Acts governing local bodies authority to the Collector as the chief representative of Government to supervise the action of local bodies and to give them advice.

(vii) *Officers of the other Departments*:—Officers of other departments stationed at the district headquarters can be divided into two groups: (A)—(1) The District and Sessions Judge, (2) the District Superintendent of Police, (3) the Divisional Forest Officer, (4) the Executive Engineer, (5) the Civil Surgeon and (6) the District Inspector of Prohibition and excise. (B)—(1) The administrative Officer, District School Board, (2) the District Agricultural Officer, and (3) the Inspector of Sanitation and Vaccination.

(A)—(1) The District Judge has a separate and independent sphere of work, and as Sessions Judge he exercises appellate powers over

* Before the appointment of Divisional Commissioner in 1958.

the decisions of all judicial magistrates in the district. The Bombay Separation of Judicicial and executive Functions Act (XXIII of 1951) was enacted to meet a longstanding and widespread desire for the separation of the judiciary from the executive officers. It has divided the magistracy into "judicial magistrates"; who are subordinates of the Sessions Judge, and "executive magistrates," who are subordinates of the District Magistrate. Before the enactment of this legislation, the Sessions Judge used to exercise appellate powers over the decisions, in criminal cases, of the District Magistrate and other first class magistrates. It has withdrawn from the executive magistrate practically all powers of trial of criminal cases, and only in certain cases the Sessions Judge has to hear appeals from the decisions of executive magistrates.

(2) The District Superintendent of Police and the Police force of the district are under the control of the District Magistrate in so far as their functions regarding the maintenance of law and order are concerned. As regards discipline, training and other administrative matters they are under the control of the Range Deputy Inspector General of Police.

(3) The Divisional Forests Officer is regarded as the Collector's assistant in regard to forest administration.

(4) The Executive Engineer stands a little apart. Since his work is technical, he is not directly subordinate to the Collector, though in a sense he plays a part subsidiary to the general administration of the district, of which the Collector is the head, and he is expected to help the Collector whenever required to do so. The Collector can ask him to investigate the utility of minor irrigation works likely to be useful in the district. According to section 11 of the Bombay Famine Relief Code, the Executive Engineer arranges, in consultation with the Collector, for the inclusion, in the programme of expansion of public works, of the plans for special and current repairs to roads and other useful work suitable as scarcity works. The programme of famine relief works is also prepared quinquennially by the Executive Engineer in consultation with the Collector. When the time for actual opening of any work comes, the Collector can requisition the services of the Executive Engineer for making immediate arrangements for procuring necessary establishment, tools, plant, building materials, etc. (Famine Relief Code section 81).

(5) The Civil Surgeon also has a separate and independent sphere of his own, but must place his professional and technical advice and assistance at the disposal of the general district administration whenever required.

(6) The District Inspector of Prohibition and Excise is subordinate to the Collector except in technical matters.

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Collector.

(B) The officers in this group are all of subordinate status. Their services in their particular spheres can be requisitioned by the Collector, either directly if the matter is urgent, or through their official superiors.

The following are some of the officers of the district who have more or less intimate contact with the Collector in matters relating to their departments and have to carry out his general instructions:—

(1) The District Industrial Officer, (2) The Assistant Director of Backward Class Welfare, (3) the Medical Officers at the various taluka centres, (4) the District Health Officer, (5) the Compost Development Officer (through the Rural Development Board), (6) the Divisional Veterinary Officer, (7) the District Inspector of Land Records, (8) the *District Officer,* Indusrial *Co-operatives* and village Industries, and (9) the District Co-operative Officers and (10) the Assistant Marketing Inspector.

The Regional Transport Officer also has to do his work in the district in consultation with the Collector.

(viii) *District Development Board:*—Upto September 1952 there was a District Rural Development Board. The District or Divisional Officer of various departments concerned with rural development, members of the State Legislature and other representatives of rural areas constituted the District Rural Development Board. It functioned from 1939 to September 1952. The Collector was the ex-officio Chairman of the District Rural Development Board.

With a view to co-ordinating the activities of the various non-statutory boards and committees in the district, the former District Rural Development Board was reconstituted in September 1952 as the District Development Board, by amalgamating all existing non-statutory boards and committees with it. The new Board consists of the following 40 members:—

(a) (i) 17 District or Divisional Officers.

(ii) 5 Memebrs of the Legislative Assembly.

(iii) 1 Member of the Legislative Council.

(iv) 1 Member of the Parliament.

(v) President, District Loan Board.

(vi) Chairman, Broach Co-operative Central Bank.

(vii) 1 Representatives of Co-operative Marketing Societies.

(viii) 1 Representative of Co-operative Agricultural Societies.

(ix) 12 other non-officials.

(b) The Collector is the ex-Officio Chairman of the District Development Board.

(c) The Vice-Chairman of the District Development Board is appointed from amongst non-officials and is the Chairman of all the Sub-Committees except the District Police Advisory Sub-Committee of which the District Magistrate (Collector) is the Chairman.

(d) An Honorary Secretary is appointed from amongst the non-official members of the Board.

(e) An Assistant Secretary is appointed from amongst the officers of the Revenue Department. He is of the status of Mahalkari and is assisted by a small staff for carrying out the administration of the Board.

(i) Nine sub-committees mentioned below are functioning under the Development Board :—

Sr. No.	*Name of the Sub—Committee.*	*No. of Members*	*Secretary.*	*Nature of work entrusted (in brief)*
1.	Prohibition	8	The District Inspector of Prohibition and Excise, Broach.	It advises and helps in respect of Government's Prohibition Policy.
2.	Rural Development	8	The District Agricultural Officer, Broach.	It advises and helps in respect of rural development schemes and agricultural activities.
3.	Minor Irrigation ...	8	The District Executive Engineer, P.W.D. Broach.	It advises and helps Government in the execution of various minor irrigation works in the district.
4.	Publicity	7	The District Publicity Officer, Broach.	It advises Government in the matter of giving publicity to various schemes.

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Sr. No.	Name of the Sub-Committee.	No. of Members	Secretury.	Nature of work entrusted (in brief)
5.	Amelioration of the conditions of the Backward Classes.	8	The Backward Class Welfare Officer, Broach and Baroda Districts, Baroda.	It advises Government in respect of amelioration of the conditions of the Backward Classes.
6.	Distribution of controlled articles.	8	The District Supply Officer, Broach.	It advises Government in respect of the distribution of controlled articles.
7.	Police Advisory ...	7	District Superintendent of police, Broach.	It advises and helps Government in respect of anti-corruption, crimes, traffic, etc.
8.	District Health ...		District Health Officer, Broach.	It advises and helps Government in matters pertaining to the health of the district.
9.	Marketing		The Assistant Registrar Co-operative Societies, Broach.	It advises and helps Government on marketing questions.

(ix) *District Magistrate.*—The Collector's duties as District Magistrate are mostly executive. He is at the head of all other executive Magistrates in the district. As District Magistrate, besides the ordinary power of a Sub-Divisional Magistrate, he has the following powers among others:—

(1) Power to hear appeals from orders requiring security for keeping the peace or good behaviour (section 406, Criminal Procedure Code);

(2) Power to call for records from any subordinate executive Magistrate (section 435);

(3) Power to issue commission for examination of witnesses (sections 503 and 506);

(4) Power to hear appeals from, or revise orders passed by, subordinate executive magistrates under section 514-procedure on forfeiture of bond (section 515).

When authorised by the State Government, the District Magistrate may invest any magistrate subordinate to him with—

(1) Power to make orders prohibiting repetitions of nuisances (section 143);

(2) Power to make orders calculated to prevent apprehended danger to public peace (section 144); and

(3) Power to hold inquests (section 174).

The executive management of sub-jails in the district is subject to the District Magistrate's orders.

Besides being in control of the police in the district, the District Magistrate has extensive powers under the Criminal Procedure Code, the Bombay Police Act (XXII of 1951), and other Acts for the maintenance of law and order.

In his executive capacity, the District Magistrate is concerned with the issue of licences and permits under the Arms Act (II of 1878), the Petroleum Act (VIII of 1899), the Explosives Act (IV of 1884), and the Poisons Act (I of 1904). He has also to supervise the general administration of these Acts, to inspect factories and magazines, and to perform various other supervisory functions.

(x) *District Registrar*:—As District Registrar the Collector controls the administration of the Registration Department within his district.

(xi) *Sanitation and Public Health*:—The duties of the Collector in the matter of sanitation are: (a) to see that ordinary and special sanitary measures are initiated in cases of outbreak of epidemic diseases; (b) to watch and promote efficiency of the sanitary administration of municipalities and other sanitary authorities; and (d) to advise and encourage local bodies to improve the permanent sanitary conditions of the areas under them so far as the funds at their disposal will allow. He can freely secure the advice and technical assistance of the District Health Officer and the Assistant Director of Public Health, Northern Registration District, in this regard.

The Collector's Office:—The Collector's Office at Broach is divided into many branches, each of which is usually in charge of a person in the grade of Mamlatdar except the Deputy Chitnis Branch, which is in charge of a person in the grade of Aval Karkun.

The Deputy Chitnis Branch deals with all magisterial work, the administration of the Bombay Entertainments Duty Act (I of 1923), the Arms Act (XI of 1878), political work connected with the maintenance of law and order, passports, petroleum and cattle pounds.

The Head Clerk Branch deals with the District Local Board, municipalities, village panchayats, prohibition and excise, public works, medical affairs, airs, telephones, stamp duty, backward class

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board meetings, dues of co-operative societies, and execution of decrees of civil courts (darkhast), etc.

The Chitnis Branch deals with matters like land revenue, land grants, watans, cash allowances, tagavi, establishment, encroachments, tenancy, audit of village accounts (jamabandi audit) and inspection of taluka and public offices.

The District Registration Office is one of the branches and is in charge of the Headquarter Sub-Registrar.

The Treasury Branch is in charge of the Treasury Officer.

There are separate branches dealing with each of the following viz,. (1) The District Development Board, (2) Land acquisition and (3) Supply branch.

Prant Officers:—Under the Collector are the Prant Officers, who are either Assistant Collectors or District Deputy Collectors. There are two Prants in the district, each in charge of separate Prant Officer. The Prant Officers have their headquarters at Broach and Rajpipla.

The Prant Officer Forms the connecting link between the Mamlatdar and the Collector. He exercises all the powers conferred on the Collector by the Land Revenue Code and by any other law in force or by executive orders, in regard to the talukas and mahals in his charge, except such powers as the Collector may specially reserve to himself.

His principal functions in regard to his sub-division are:—

(i) *Revenue*:—(1) inspection and supervision of the work of mamlatdars, circle officers, circle inspectors, and village officers, including the inspection of taluka *kacheries.*

(2) Appointment, transfer, etc., of stipendiary village officers and appointment etc., of hereditary village officers.

(3) Safeguariding Government property by regular inspection, dealing with encroachments and breaches of the conditions on which land is held on restricted tenure, etc.

(4) Grant of waste land and disposal of alluvial land.

(5) Levy of non-agricultural assessment and passing orders regarding miscellaneous land revenue.

(6) Bearing of appeals against Mamlatdar's decisions in assistance cases and watching the execution of assistance decrees.

(7) Crop and boundary mark inspection and the checking of annewaries (anevaries) i.e., estimates of crop yields for the purpose of suspensions and remissions of revenue, and the record of rights.

(8) Hearing of appeals from Mamlatdar's and Mahalkaris' decisions in cases under the Bombay Tenancy and Agricultural Lands Act.

(9) Supervision over the realisation of Government revenue.

(10) Successions to *watans* and other properties.

(11) Land acquisition.

(ii) *Magisterial*:—The Prant Officer is the Sub-Divisional Magistrate of the area in his charge and as such exercises the powers specified in Part IV of Schedule III of the Criminal Procedure Code. These include the ordinary powers of a Taluka Magistrate and also the power to require security to keep the place (section 107); power to require security for good behaviour under sections 108, 109 and 110; power to make orders calculated to prevent apprehended danger to public peace (section 144); power to record statements and confessions during a police investigation (section 164); and power to hold inquests (section 174). The Sub-Divisional Magistrate, when empowered by the State Government, has power also to call for and forward to the District Magistrate, records and proceedings of subordinate executive Magistrates.

As Sub-Divisional Magistrate, the Prant Officer is required to inspect police sub-inspectors' offices from much the same point of view from which the District Magistrate is required to do the same.

(iii) *Other Duties* : Among the other duties of the Prant Officer may be mentioned : (i) keeping the Collector informed of what is going on in his sub-division not only from the revenue point of view but also in matters connected with law and order; (2) forest settlement work; and (3) grant of tagai loans.

Each Prant Officer is assisted in his work by a sheristadar and about five clerks.

The Mamlatdars (and Mahalkaris)

Mamlatdars and Mahalkaris.

The Mamlatdar is the officer in executive charge of a taluka and the Mahalkari has the executive charge of a mahal. There is a subtreasury in every taluka or mahal, and there is practically no differences in kind between the functions and duties of a Mamlatdar and of a Mahalkari. Each taluka or mahal has on the average two or three head karkuns (or *aval* karkuns), 15 to 18 clerks, 60 Talathis, two Circle Officers and two Circle Inspectors. The duties of Mamlatdars and Mahalkaris fall under various heads.[1]

(i) *Revenue*:—The Mamlatdar's revenue duties are to prepare the ground work for the Prant Officer and the Collector to pass their orders upon. His report is called for in almost all revenue matters. When these orders are passed he has to execute them.

In regard to the annual demand of land revenue he has to get ready all the statements necessary for what is called the making of the *jamabandi* of the taluka by the Collector or Prant Officer. The

1. Whatever is said of the Mamlatdar in the following paragraphs applies also to the Mahalkari.

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jamabandi is an audit of the previous year's accounts. The demand for fixed agricultural revenue is settled, but there are remissions and suspensions to be calculated upon that fixed demand in lean years. Remissions and suspensions are given in accordance with the crop *annewari*, with the determination of which the Mamlatdar is most intimately concerned. To the demand of fixed revenue is added the amount of non-agricultural assessment and of fluctuating land revenue, arising from the sale of trees, stones or sand, fixed when individuals apply for them.

The brunt of the work of collection also lies on the Mamlatdar. He can issue notices under section 152 of the Land Revenue Code, inflict fines for delay in payment under section 148 of the same Code, distrain and sell movable property, and issue notices of forfeiture of the land, though he has to take the Prant Officer's or the Collector's orders for actual forfeiture.

He has also to collect in addition to land revenue, tagai loans; *pot hissa* measurement fees; boundry mark advances; irrigation revenue; the dues of the other departments like sales tax, income tax, and forest when there is default in payment, at the request of the departments to recover the dues as an arrear of land revenue; toll of ferry farm dues; forest grazing fees; and co-operative credit societies' dues.

It is also his duty to see that there is no breach of any of the conditions under which *inams* are held and whenever there is any breach, to bring it to the notice of the Collector through the Pran Officer.

He has to make enquiries and get ready the material on which the Prant Officer has to pass his orders under the Bombay Hereditary Offices Act (III of 1874). He can himself pass orders as to the appointment, remuneration, period of service, suspension and fining of inferior village servants, the grant of leave of absence to them etc. (section 64(3) of the Hereditary Offices Act).

Applications for grant of *tagai* are generally received by the Mamlatdar, who has to get inquiries made by the Circle Officer or Circle Inspector, see the sites for the improvement of which *tagai* is sought, ascertain whether the security offered is sufficient, determine what instalments for repayment would be suitable, etc. He can himself grant *tagai* up to Rs. 1,000/- and Rs. 200/- under the Land Improvement Loans Act and the Agricultural Loans Act respectively. A Mamlatdar who has been specially empowered can grant *tagai* up to Rs. 2,500/- and Rs. 500/- under the two Acts respectively. In other cases, he has to obtain the Prant Officer's or the Collector's orders.

The Mamlatdar's duties regarding *tagai* do not end with the giving of it; he has to see that it is properly utilised, inspect the works undertaken by its means, watch the payment and make recoveries from defaulters. The Mamlatdar is primarly responsible for the administration of the Bombay Tenancy and Agricultural Lands Act

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(LXVII of 1948) within the area of his charge Some of his powers under the Act have been delegated to the Aval Karkuns.

(ii) *Quasi-Judicial*:—The quasi-judicial duties which the Mamlatdar performs include : (1) inquiries and orders under the Mamlatdars' Courts Act (II of 1906); (2) the execution of civil court decrees; (3) the disposal of applications from superior holders for assistance in recovering land revenue from inferior holders; and (4) enquiry in respect of disputed cases in connection with the record of rights in each village. The last two are summary enquiries under the Land Revenue Code.

(iii) *Magisterial*:—Every Mamlatdar is *ex-officio* the Taluka Magistrate of his taluka. As Taluka Magistrate, First Class, he has the following among other powers under the Criminal Procedure Code :—

(1) Power to command unlawful assembly to disperse (section 127).

(2) Power to use civil force to disperse unlawful assembly (section 128).

(3) Power to require military force to be used to disperse unlawful assembly (section 130)

(4) Power to apply to District Magistrate to issue commission for examination of witnesses (section 506).

(5) Power to recover penalty on forfeited bond (section 514) and to require fresh security (section 514-A).

(6) Power to make order as to disposal of property regarding which an offence is committed (section 517).

(7) Power to sell property of a suspected character (section 525).

If authorised by the State Government or the District Magistrate, the Taluka Magistrate may exercise the following among other powers :—

(1) Power to make orders prohibiting repetition of nuisances (section 143).

(2) Power to make orders calculated to prevent apprehended danger to public peace (section 144).

(3) Power to hold inquests (section 174).

The Mamlatdar is also in charge of the management of the sub-jail. He has to keep the District Magistrate and the Sub-Divisional Magistrate informed of all criminal activities in his charge, taking steps incidental o he maintenance of law and order in his charge. In a case of serious disturbance of the public peace the Mamlatdar carries great responsibility, for, as the senior executive magistrate on the spot, he must issue orders and carry on till his superiors arrive.

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(iv) *Treasury and Accounts*:—As Sub-Treasury Officer the Mamlatdar is in charge of the taluka treasury, which is called "sub-treasury" in relation to the District Treasury. Into this treasury all moneys due to Government in the taluka —sales tax, land revenue, forest, public works and other receipts— are paid and from it nearly the whole of the money expended for Government in the taluka is secured. The sub-post offices in the taluka receive their cash for postal transactions from the sub-treasury and remit their receipts to it. The Sub-Treasury Officer pays departmental officers on cash orders, or demand drafts issued by Treasury Officers and on cheques, except where certain departments are allowed to present bills direct at the Sub-Treasury. The Sub-Treasury Officer also issues Government and bank drafts.

When the Mamlatdar is away from his head-quarters, the Treasury Head Karkun is *ex-officio* in charge of the Sub-Treasury and of the account business, and he is held personally responsible for it. During the Mamlatdar's presence he is authorised to sign receipts irrespective of the amount.

The Taluka Sub-Treasury is also the local depot for stamps —general, court-fee and postal— of all denominations and for the stock of opium for sale to permit holders. A few sub-treasuries have been specially authorized to discontinue the maintenance of a stock of postal stamps In such cases, the sub-post office at the t luka headquarters is supplied with postal stamps from the post offices at the district headquarters.

A currency chest is maintained at almost all sub-treasuries in which surplus cash balances are deposited. From it withdrawls are made to replenish sub-treasury balances whenever necessary. Sub-treasuries are treated as agencies of the Reserve Bank for remittance of funds.

The Mamlatdar has to verify the balances in the Sub-Treasury, including those of stamps and opium, on the closing day of each month, which for the convenience of the District Treasury is fixed on the 25th of all months, except February, when it is the 23rd, and March, when it is the 31st, the latter being the closing day of the financial year. The reports of the verification, together with the monthly returns of receipts under different heads, has to be submitted by the Mamlatdar to the Treasury Officer at Broach. The sub-treasuries are annually inspected by either the Collector or the Prant Officer.

(v) *Other Administrative Duties*:—The Mamlatdar is the pivot of the administration in his taluka. He is responsible to the Collector and the Prant Officer and has to keep them constantly informed of all political happenings, outbreaks of epidemics and other matters affecting the well-being of the people, such as serious maladministration in any department or any hitch in the working of the administrative machinery.

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He helps and guides officers of all departments in the execution of their respective duties in so far as his taluka is concerned. In fact, he is the connecting link between the officers and the public whom they are all meant to serve. This is particularly so in departments which do not have a local taluka officer of their own. The Mamlatdar is responsible for the cattle census, which really comes under the purview of the Agricultural Department. The Co-operative Department expects the Mamlatdar to propagate co-operative principles in his taluka. He has to execute the awards and decrees of societies in the taluka, unless there is a special officer appointed for the purpose. He has to take prompt action in respect of epidemics and to render to the Assistant Director of Public Health and his assistants every help in preventing outbreaks of epidemics and suppressing them when they occur.

Under executive orders the Mamlatdar has to provide the Military Department with the necessary provisions and conveyances when any detachment marches through the taluka.

The Mamlatdar's position in relation to other taluka officers e.g., the sub-inspector of police, the sub-registrar, the range forest officer, the sub-assistant surgeon and the prohibition officer is not definable. They are not subordinate to him except perhaps in a very limited sense but are grouped round him and are expected to help and co-operate with him in their particular spheres.

Though the Mamlatdar is not expected to work directly for local self-governing bodies, he is usually the principal source of the Collector's information about them. He is responsible for the administration of his taluka just as the Collector is responsible for the district.

The Mamlatdar is *ex-officio* Vice-Chairman of the Taluka Development Board, which acts as the agency of the District Development Board in the taluka in all matters pertaining to agricultural and rural development, and especially in regard to the "grow more food" compaign. The other members of the board are the Agricultural Assistant stationed at the taluka, the Range Forest Officer, the Assistant District Co-operative Officer stationed at the taluka headquarters, and the Veterinary Assistant. The Collector nominates as members, with the approval of Government, three non-officials known to take active interest in the "grow more food" campaign in the taluka.

The Mamlatdar is also *ex-officio* Vice-President of the Taluka Development Association, which is an association registered under the Bombay Co-operative Societies Act (VII of 1925), and has as its object the agricultural development of the taluka.

In relation to the public well-being, the Mamlatdar is the local representative of Government and performs generally the same functions as the Collector.

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Circle Officers and Circle Inspectors.

Circle Officers and Circle Inspectors:—In order to assist the Mamlatdar in exercising proper supervision over village officers and village servants and to make local enquiries of every kind promptly, Circle Officers in the grade of Aval Karkuns, and Circle Inspectors in the grade of Karkuns are appointed. The Circle Officer certifies entries in the record of rights, and thus relieves the Mamlatdar of a good deal of routine work. About 30 to 50 villages are in charge of a Circle Officer or Circle Inspector. These Officers form a link between the Mamlatdar and the village officers. There are generally two Circle Officers and two Circle Inspectors in each taluka. Their duties relate to:—

(1) boundary mark inspection, inspection of crops including the estimating of their annewari, the inspection of *tagai* works and detection of illegal occupations of land;

(2) preparation of agricultural and other statistical returns, viz., crop statistics, cattle census, and water supply;

(3) supervision of the village officers in the preparation and maintenance of the record of rights the mutation register and the tenancy register;

(4) examination of land revenue receipts and supervision of revenue collection, and

(5) such other miscellaneous work as the Mamlatdar may from time to time entrust them with e.g., enquiry into an alleged encroachment.

Patel.

The Patel (Village Headman):—The Patel is the principal official in a village. The duties of the patel fall under the following heads; (i) revenue; (ii) quasi-magisterial; and (iii) administrative. His revenue duties are:—

(1) in conjuction with the *Talati* (or village accountant) to collect the revenue due to Government from the rayats;

(2) to detect encroachments on Government land and protect trees and other property of Government;

(3) to execute the orders received from the taluka office in connection with recovery of revenue and other matters;

(4) to get the *Talati* to maintain properly the record of rights and village accounts and to get him to submit the periodical returns punctually; and

(5) to render assistance to high officials visiting the village for inspection work and other purposes.

The Police Patel has to perform quasi-magisterial functions. In a majority of villages the same person is both the police and the Revenue Patel. The Police Patel is responsible for the writing of the

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birth and death register and for the care of unclaimed property found in the village. Several duties have been assigned to the Police Patel by the Bombay Village Police Act (VIII of 1867). The village police is under his charge, and he has authority to require all village servants to aid him in performing the duties entrusted to him. He has to take care of the village establishment so as to afford the utmost possible security against robbery, breach of the peace and acts injurious to the public and to the village community. It is the police patel's duty to furnish the taluka magistrate with any returns or information called for and keep him constantly informed of the state of crime and the health and general condition of the comunity in his village. He has to afford police officers every assistance in his power when called upon by them. Further he has to obey and execute all orders and warrants issued to him by an executive magistrate or a police officer; collect and communicate to the district police intelligence affecting public peace; prevent within the limits of his village the commission of offences and public nuisances; and detect and bring offenders therein to justice. If a crime is committed within the limits of the village and the perpetrator of the crime escapes or is not known, he has to forward immediate information to the police officer in charge of the police station within the limits of which his village is situated, and himself proceed to investigate the matter and obtain all procurable evidence and forward it to the police officer. If any unnatural or sudden death occurs or any corpse is found, the police patel is bound to hold an inquest with the help of two or three or more intelligent persons belonging to the village or the neighbourhood. The report of the inquest has then to be forwarded by him to the police officer. He has also to apprehend any person in the village who he has reason to believe has committed any serious offence and send him, together with all articles likely to be useful in evidence, to the police officer.

Patel.

As regards the patel's administrative duties, he is expected to look to the sanitation and public health of the village. He must also report promptly the outbreak of any epidemic to the taluka office. He is expected to render every assistance to travellers.

Talati.

The Talaties (Village Accountant):—The posts of Talatis are not hereditary; they are all stipendiary and on a time scale of pay. The Talati is recruited by the Prant officer. Hs is normally in charge of more than one village. The group of villages in charge of a Talati is called Saza. The Talati's main duties are (1) to maintain the village accounts relating to demand, collection and arrears of land revenue, etc., the Record of Rights and all other village forms prescribed by Government; (2) to inspect crops and boundary marks and prepare agricultural statistics; (3) to help the Patels in the collection of land revenue, write the combined day and receipt book and other accounts and do other clerical work, including that of the Police Patel, when the latter is illiterate. In areas covered

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by the Community Development Scheme, the Talati functions as Assistant Gram Sevak and is entrusted with the development activities of the villages in his charge in addition to his normal duties.

Village Servants:—In addition to Talatis and Patels there are some hereditary village servants. They are of two kinds; (1) those useful to Government; and (2) those useful to the community.

The village servants useful to Government are *Bhangis, Dheds, Vartanias, Vethias* and *Rakhas*. They are remunerated by *watans* which take the from of grant of land either entirely free of assessment or reduced assessment or cash payment from Government Treasury. The Bhangis and Dheds help the village Patel and Talati in the collection of revenue and other minor details of village administration. They inform the village people regarding Government orders by beat of drum in the village.

The vartanias watch the movements of criminals and help the village Patels in the discharge of their duties connected with the police administration. The vartanias carry the land revenue remittance to the Taluka or Mahal Sub-Treasury.

The village servants useful to the community are as under:

(1) Barber; (2) Carpenter; (3) Blacksmith; (4) Gamat Gor; (village Brahmin); (5) Dhobi; (6) Mochhi; (7) Potter; (8) Khalpa; (9) Tailor; (10) Kosias.

Some of them have either disappeared or are in the process of disappearing from the village economy, but others are still in existence with their usefulness reduced by modern conditions of life. Under this system, the servants have certain rights and privileges at ceremonies. Their services are remunerated by the cultivators in the shape of annual payments in sheaves of corn and a few seers of other grains grown in the fields. For special services rendered on ceremonial occasions payments are made in cash, corn or cloth. The following categories of village servants useful to the community are still in existence in the villages: (1) carpenters; (2) barbers; (3) blacksmiths: (4) khalpas; (5) Gamat Gors; (6) and potters. The services of the remaining categories of servants are not utilised by the villagers and, therefore, they have left the villages to seek their livelihood in cities and towns. The Government's policy is to abolish hereditary posts of village servants.

The lands held by Gamot Gors are resumed by levy of full assessment, if they desire to be relieved from their obligation of performing the Gamot services.

The barber, as a village servant useful to the community, does many duties not connected with his profession. At the time of a marriage ceremony, when the bridegroom goes to the temple to pray, he holds his purse and receives somthing as a present. At village festivals or marriage ceremonies, he serves water to the guests. It is his privilege to act as messenger at a marriage ceremony and call the

invitees for the function. He massages persons of distinction at the village. He plays on the pipe at weddings and on other occasions.

The Gamot Gor (Village Brahmin) officiates as priest at marriage ceremonies. He also sometimes performs the duties of a cook and distributes invitation to marriage ceremonies.

LOCAL SELF GOVERNMENT

Local self-Government in the district is conducted by various statutory bodies enjoying local autonomy in different degrees. The progress of these institutions has gone on in three spheres. First, in regard to their constitution, from fully or partly nominated bodies they have now become entirely elective. Secondly, their franchise, which had gone on widening, has, with the enactment of the Bombay Local Authorities Adult Franchise and Removal of Reservation of Seats Act (XVII of 1950) reached the widest limit possible, viz., universal adult franchise. Every person who

(a) is a citizen of India,
(b) has attained the age of 21 years, and
(c) has the requisite residence, business premises or taxation qualification,

is now entitled to be enrolled as a voter. Up till 1950, reservation of seats for women, Muhammadans, Christians, Anglo-Indians, Harijans, and Backward Tribes had been provided in municipalities and in the district local board, and for women, Muhammadans, Harijans and Backward Tribes in village panchayats. Muhammadans were also provided separate electorates in local bodies and municipalities before 1947. The enactment mentioned above abolished the reservation of seats for Muhammadans, Christians and Anglo-Indians but continued it for ten years from the commencement of the Constitution of India (i.e., till 26th January 1960) for women, Scheduled Castes and Scheduled Tribes, which castes and tribes more or less represent Harijans and Backward Tribes. Thirdly, wider powers have been gradually conferred on local bodies for the administration of the areas under their charge.

Another recent reform is connected with the controlling authority over institutions of local self-government. Before the enactment of the Bombay Commissions (Abolition of Office) Act (XXVIII of 1950) the Commissioners of Divisions used to exercise this control, but since its enactment, by notification in the Local Self-Government and Public Health Department No. 6548133, dated the 15th August 1950, issued under section 3 of the Act, Government appointed Directors of Local Authorities to exercise such functions as the Commissioners of Divisions used to exercise under the following Acts:—

(1) The Bombay Village Sanitation Act (I of 1889)
(2) The Bombay District Vaccination Act (I of 1892)
(3) The Bombay District Municipal Act (III of 1901)
(4) The Bombay Town Planning Act (I of 1915)
(5) The Bombay Local Boards Act (VI of 1923)

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(6) The Bombay Municipal Boroughs Act (XVIII of 1925)
(7) The Bombay Local Fund Audit Act (XXV of 1930)
(8) The Bombay Village Panchayats Act (VI of 1933)

Accordingly, the Director of Local Authorities, Northern Division, had jurisdiction over the Broach district, from 1950 to 1958. But with reorganisation of States and creation of six Commissioner's Divisions in the State, the office of the Director of Local Authorities was abolished and Divisional Commissioners began to exercise their powers as before.

Municipalities.

Municipalities:—The total area in the district under the administration of municipalities in 1954 was 7.3 square miles with a population of 1,09,679 (1951 census). The following is a list of the municipalities with their population according to the 1951 census, area, number of wards, total number of councillors, number of seats reserved for the representatives of women and Scheduled Castes and number of nominated seats:—

Name of Municipality	Area in Sq. miles	Population 1951* Census	No. of wards	Number of Councillors. Total	Reserved for women.	Reserved for Scheduled Castes and Tribes.	Nominated,
Broach ...	3.10	62,729	7	30	1	3	Nil
Ankleshwar	1.20	15,275	4	16	2	3	Nil
Jambusar ...	1.75	14,244	7	18	2	1	Nil
Rajpipla ...	1.25	17,431	4	16	2	3	Nil
	7.30	1,09,679	22	80	7	10	

*The population given in the Census Hand Book is of the revenue village which in area is much bigger than the municipal district administered by the municipality. But the population of the revenue village more or less approximates to the population of the municipal town, as the area of the revenue village not included in the municipal district ismore or less uninhabited as it is composed only of agricultural fields. The cultivators stay in the town and go to the fields when they have to perform agricultural operations.

Broach has a borough municipality governed by the Bombay Municipal Boroughs Act (XVIII of 1925), and the other three are working under the Bombay District Municipal Act (III of 1901).

Under the Bombay District Municipal Act, the State Government has power to declare by notification any local area to be a "Municipal district" and also to alter the limits of any existing municipal district. In every municipal district a municipality has to be

constituted, consisting of elected councillors, the Divisional Commissioner having power to nominate councillors to represent constituencies which fail to elect the full number allotted to them. The State Government has power to prescribe the number and the extent of the wards to be constituted in each municipal district and the number of councillors to be elected by each ward. Till 26th January 1960, it can also reserve seats for the representation of women, the Scheduled Castes and Scheduled Tribes.

The term of office of a municipality is three years, but it can be extended to an aggregate of four years by an order of the Divisional Commissioner. Under the Act, every municipality has to be presided over by a president elected from among the councillors and either appointed by Government or elected by the municipality, if the State Government so directs. A Vice-President is elected by the councillors from among themselves, but in the case of a municipality whose President is appointed by Government the result of the election of the Vice-President is subject to the approval of Government. At present all municipalities in the Broach district are allowed to elect their Presidents.

The government of a municipal district vests in the municipality. The head of the municipality is the President. whose duties are:—

(a) to preside at meetings of the municipality;

(b) to watch the financial and executive administration and to perform such other executive functions as may be performed by the municipality; and

(c) to exercise supervision and control over the acts and proceedings of all officers and servants of the municipality.

There is provision for the compulsory constitution of a managing committee in the case of all municipalities and of a pilgrim committee in the case of those municipalities which have been specially notified by the State Government. Option is also left to municipalities to appoint other executive or consultative committees. In the Broach district, none of the municipalities have pilgrim committees.

The Act divides municipal functions into obligatory and optional. The former includes all matters essential to the health, safety, convenience and well-being of the population, while the latter are matters, which, though they are legitimate objects of local expenditure, are not considered absolutely essential. The following are among the obligatory duties laid on all municipalities:—

(a) lighting public streets, places, and buildings;

(b) watering public streets and places;

(c) cleaning public streets, places and sewers; removing noxious vegetation; and abating all public nuisances;

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LOCAL SELF GOVERNMENT.

(d) extinguishing fires, and protecting life and property when fires occur;

(e) regulating or abating offensive or dangerous trades or practices;

(f) removing obstructions and projections in public streets, or places;

(g) securing or removing dangerous buildings or places, and reclaiming unhealthy localities;

(h) acquiring and maintaining, changing and regulating places for the disposal of the dead;

(i) constructing, altering and maintaining public streets, culverts, municipal boundary marks, markets, slaughter-houses, latrines, privies, urinals, drains, sewers, drainage works, sewage works, baths, washing places, drinking fountains, tanks, wells, dams, and the like;

(j) obtaining a supply or an additional supply of water, proper and sufficient for preventing danger to the health of the inhabitants from the insufficiency or unwholesomeness of the existing supply when such supply or additional supply can be obtained at a reasonable cost;

(k) registering births and deaths;

(l) public vaccination;

(m) establishing and maintaining hospitals and dispensaries and providing public medical relief;

(n) establishing and maintaining primary schools;

(o) disposing of night-soil and rubbish and, if so required by the State Government, preparing compost manure from such night-soil and rubbish;

(p) constructing and maintaining residential quarters for the conservancy staff of the municipality;

(q) providing special medical aid and accommodation for the sick in time of dangerous disease; and taking such measures as may be required to prevent the outbreak of the disease or to suppress it and prevent its recurrence;

(r) giving relief and establishing and maintaining relief works in time of famine or scarcity to or for destitute persons; and

(s) paying for the maintenance and treatment of lunatics and lepers and persons affected by rabies, in case they are indigent and have been resident in the municipality for one year.

Municipalities may, at their discretion, provide out of their funds for the following among others:—

(a) laying out new public streets;

(b) constructing, establishing or maintaining public parks, gardens, libraries, museums, lunatic asylums, halls, offices, *dharmashalas*, rest-houses, homes for the disabled and destitute persons, and other public buildings;

(c) furthering educational objects;

(d) securing or assisting to secure suitable places for the carrying on of offensive trades;

(e) establishing and maintaining a farm or factory for the disposal of sewage;

(f) the construction, purchase, organisation, maintenance, extension and arrangement of mechanically propelled transport facilities for the conveyance of the public;

(g) promoting the well-being of municipal employees and their dependents;

(h) providing accommodation for municipal employees and their dependents;

(i) construction of sanitary dwellings for the poorer classes;

(j) making contributions towards the construction, establishment or maintenance of educational institutions including libraries and museums, any hospital, dispensary or similar institution providing for public medical relief, or any other institution of a charitable nature;

(k) the setting up of dairies or farms for the supply, distribution and processing of milk or milk products for the benefit of the inhabitants of the municipal district; and

(l) any measure likely to promote the public safety, health, convenience or education.

Municipal taxation may embrace the following items:—

(i) a rate on building and lands;

(ii) a tax on all or any vehicles, boats, or animals used for riding, draught or burden:

(iii) a toll on vehicles (other than motor vehicles or trailers) and animals used as aforsaid;

(iv) an octroi on animals and goods;

(v) a tax on dogs;

(vi) a special sanitary cess upon private latrines, premises, or compounds cleansed by municipal agency;

(vii) a general sanitary cess for the construction and maintenance of public latrines, and for the removal and disposal of refuse;

(viii) a general water rate or a special water rate, or both;

(ix) a lighting tax;

(x) a tax on pilgrims; and

(xi) any other tax which the State legislature has power to impose.

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Instead of (i), (vii), (viii), and (ix), a consolidated tax assessed as rate on buildings or lands may be imposed.

The rules regulating the levy of taxes have to be sanctioned by the Divisional Commissioner, who has been given powers to subject the levy to such modifications, not involving an increase of the amount to be imposed or to such conditions as to application of a part or whole of the proceeds of the tax to any purpose. If any tax is imposed on pilgrims resorting periodically to a shrine within the limits of the municipal district, the Divisional Commissioner may require the municipality to assign and pay to the District Local Board such portion of the tax as he deems fit, and when a portion is so assigned an obligation is laid on the board to expend it on works conducive to the health, convenience and safety of the pilgrims.

The State Government may object to the levy of any particular tax which appears to it to be unfair in its incidence or obnoxious to the interest of the general public and suspend the levy of it until such time as the objections are removed. The State Government may require a municipality to impose taxes when it appears to it that the balance of the municipal fund is insufficient for meeting any cost incurred by any person acting under the directinos of the Collector or of the Divisional Commissioner, for the execution of any work or the performance of any duties which the municipality is under an obligation to execute or perform but which it has failed to execute or perform.

Many of these taxes are levied by the municipalities but the rates at which they are levied do not enable them to meet all their expenditure. Their incomes have to be supplemented by numerous grants made by Government, both recurring and non-recurring. For instance, grants are made by Government to municipalities towards maintenance of municipal dispensaries and hospitals, water supply and drainage schemes, expenditure on epidemics, payment of dearness allowance to staff, etc. These grants add substantially to the municipal income.

Since the passing of the Bombay Primary Education Act (LXI of 1947), control of primary education has virtually been transferred from district municipalities and the District Local Board to the Broach District School Board, and the financial liabilities of district municipalities have been limited. The District School Board has control of primary education in their areas, but the municipalities concerned pay over to the District School Board only 5 per cent. of the rateable value of the properties in their areas as a contribution towards meeting the expenses on primary education. Compulsory education has been introduced in all municipal areas (except in Rajpipla which was only recently merged in the Broach district).

Control over the municipalities is exercised by the Collector, the Divisional Commissioner and the State Government. The Collector has powers of entry and inspection in regard to any immovable

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property ocupied by a municipality or any work in progress under it. He may also call for extracts from the proceedings of a municipality or for any books or documents in its possession or under its control. He may also require a municipality to take into its consideration any objection he has to any of its acts or information which he is able to furnish necessitating any action on its part. These powers are delegated by the Collector to the Assistant or Deputy Collectors in charge of talukas.

The Divisional Commissioner has powers to order a municipality to suspend or prohibit, pending the orders of the State Government, the execution of any of its orders or resolutions, if, in his opinion, they are likely to cause injury or annoyance to the public or to lead to a breach of the peace or are unlawful. In case of an emergency, the Divisional Commissioner may provide for the execution of any work or the doing of any act which a municipality is empowered to execute or do and the immediate execution or doing of which is necessary for the health or safety of the public and may direct that the expenses shall be forthwith paid by the municipality. Subject to appeal to the State Government, the Divisional Commissioner is also empowered to require a municipality to reduce the number of persons employed by it and also the remuneration assigned to any member of the staff. On the recommendation of a municipality he can remove any councillor guilty of misconduct in the discharge of his duties.

When satisfied that a municipality has made a default in performing any statutory duty imposed on it, the State Government may direct the Divisional Commissioner to fix a period for the performance of that duty, and if that duty is not performed within the period stipulated, the Divisional Commissioner may appoint some person to perform it and direct that the expenses shall be forthwith paid by the municipality. If the State Government is of the view that a municipality is not competent to perform or persistently makes default in the performance of its duties or exceeds or abuses its power, it may either dissolve the municipality or supersede it for a specific period. The president or vice-president of a municipality or municipal borough may be removed by the State Government for misconduct or for neglect or incapacity in regard to the performance of his duties.

The audit of all Local Fund Accounts is provided for by the Bombay Local Fund Audit Act (XXV of 1930). The Divisional Commissioner, on receipt of the report of the Examiner of Local Funds, may disallow any item of expenditure which appears to him to be contrary to law and surcharge the same on the person making or authorising the making of the illegal payment. Appeal against the order may be made to the District Court or to the State Government.

As already stated, the Bombay Municipal Boroughs Act is applied in the Broach district only to the Broach municipality. This Act,

enacted in 1925, conferred greater powers on a municipal borough than those conferred on municipalities governed by the Bombay District Municipal Act, 1901.

In the case of a borough municipality a standing committee is appointed instead of a managing committee as in the case of district municipalities. The powers of the standing committee are wider than those of the managing committee. The appointment of chief officer is made compulsory and he has been given powers under the Act in respect of control of the subordinate staff. A chief officer has to be a graduate of a recognised university or a qualified engineer, and it is laid down by section 33 of the Bombay Municipal Boroughs Act, that no chief officer shall be removed from office, reduced or suspended unless by the votes of at least two-thirds of the whole number of councillors.

As regards taxation, a borough municipality is empowered to levy, a drainage tax, and a special education tax, in addition to the taxes leviable by municipalities governed by the District Municipal Act.

Certain powers exercised by the Divisional Commissioner in the case of district municipalities are, in the case of borough municipalities, exercised by the State Government, namely, (1) power to sanction the rules regulating the levy of taxes, (2) power to remove, on the recommendation of the municipality, any councillors guilty of misconduct in the discharge of his duties, and (3) power to extend the term of a municipality from three years to four years.

An account of the individual municipalities in the district and the municipal borough of Broach will be found in the paragraphs dealing with the towns concerned in chapter No. 20.

District Local Board.

The District Local Board:—The local self-government of the Broach district, excluding its municipal and cantonment areas, is entrusted to the Broach District Local Board, which is constituted under the Bombay Local Boards Act (VI of 1923). The area administered by the board is 2,925 square miles, and, according to the Census of 1951, it contained a population of 5,96,367. The board is wholly elected and is composed of 30 members, 11 of whom occupy seats reserved for women, scheduled castes and scheduled tribes. Its term of office is four years, extensible by order of the Divisional Commissioner to a term not exceeding in the aggregate five years. If an election does not result in the return of the required number of qualified persons willing to take office, the Divisional Commissioner has to appoint the necessary number.

The President of the Board is elected by the board from among its members. His term of office is co-extentive with the life of the board. His chief functions are: (a) to preside at meetings of the

board; (b) to watch over the financial and executive administration of the board; (c) to exercise supervision and control over the acts and proceedings of all officers and servants of the board in matters of executive administration and in matters concerning the accounts and records of the board; and (d) subject to certain limitations prescribed by Rules framed under the Act, to dispose of all questions relating to the service of the officers and servants, and their pay, privileges and allowances. Without contravening any order of the board, he may, in cases of emergency, direct the execution or stoppage of any work or the doing of any act which requires the sanction of the board.

A Vice-President is elected in the same manner as the President and presides over the meetings of the board in his absence. He exercises and performs such powers and duties of the president as may be delegated to him. Pending the election of a President or during his absence on leave the Vice-President exercises the powers and performs the duties of his superior.

Under the Act it is compulsory for the board to appoint a standing committee. The appointment of other committees is optional, but the board has been appointing committees for allopathic, ayurvedic and veterinary dispensaries. The standing committee is to consist of not more than nine members, and not less than five members as the board may determine. The president of the Board is the *ex-officio* chairman of the committee. Tenders of works costing not more than Rs. 10,000 shall be sanctioned by it. It also considers subjects that generally do not come within the purview of other committees. The other committees advise the board on subjects coming within their purview.

The obligatory and optional functions of the board are set out in section 50 of the Bombay Local Boards Act. The chief obligatory duties are: —

(1) the construction of roads and other means of communication and the maintenance and repair of all roads and other means of communication vested in it;

(2) the construction and repair of hospitals, dispensaries, markets, *dharmashalas* and other public buildings and the visiting, management and maintenance of these institutions;

(3) the construction and repair of public tanks, wells and waterworks; the supply of water from them and from other sources; and the construction and maintenance of works for the preservation of water for drinking and cooking purposes from pollution;

(4) public vaccination, and sanitary works and measures necessary for the public health; and

(5) the planting and preservation of trees by the side or in the vicinity of the roads vesting in the board;

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(6) the provision for primary education in the district and its execution.

Under the Bombay Primary Education Act (LXI of 1947) and the rules framed under it, which came into force from 1st April, 1949, the District Local Board, Broach, has no longer any administrative or financial control over primary education. The only duty of the Board is to hold an election of the members of the District School Board as prescribed in the Act, and to assign to the School Board a revenue equal to 15 pies in a rupee out of the income from the cesses on land revenue and water-rate.

The main financial resources of the board, as set out in section 75 of the Bombay Local Boards Act, are :—

(1) a cess on land revenue up to a maximum of three annas in the rupee ;

(2) a cess on water rate up to a maximum of three annas in the rupee ;

(3) all rents and profits accruing from property (including ferries) vested in the board ; and

(4) grants from Government.

Under section 79 of the Act, the board has to assign to every municipality or cantonment two-thirds of the cesses on land revenue levied on lands within that municipality or cantonment. The board now levies the cesses on land revenue and water-rate at the maximum of three annas in the rupee.

Under section 118A of the Act the State Government has to make every year a grant to every district local board equivalent in amount to 15 per cent. of the land revenue, including non-agricultural assessment, realised during the previous year from lands within the limits of the board, excluding lands within municipal boroughs, municipal districts or village panchayats.

The controlling authorities in relation to the District Local Board are the Collector, the Divisional Commissioner, Northern Division, and the State Government. They exercise in the case of the District Local Board more or less the same powers that they have in the case of municipalities.

The following were the receipts and expenditure of the Broach District Local Board under the various heads in 1952-53, excluding Primary Education (which is now looked after entirely by the District School Board) and Deposits, Advances, Investments, and Provident Fund:—

Receipts.	Rs.
Land Revenue	4,13,890
Local Rates	5,47,407
Interest	13,666
Police	220

Receipts	*Rs.*
Medical	20,440
Scientific and other minor departments	16,632
Miscellaneous and grants including general and dearness grants	45,920
Civil Works	1,62,282
Total	12,20,457

Expenditure.	
Refund and Drawback	
General Administration	65,583
Medical	1,09,376
Scientific and other minor departments	29,625
Superannuation Allowances and pensions	8,650
Miscellaneous	10,086
Civil Works	9,99,656
Total	12,22,976

Under Deposits, Advances, Investments and Provident Fund the receipts were Rs. 29,76,271 and expenditure Rs. 24,45,022.

The board has unrestricted powers of appointment of the officers and of payment to them, but where it appoints a Chief Officer, an Engineer, or Health Officer, such appointment is approved by Government, Government has to pay to the board two-thirds of the salary of such officer. At present, the board has appointed only a Chief Officer and an Engineer.

Roads:—In 1951-52, the Board had a total road mileage of 731. The maintenance of these roads is a responsibility of the Board. Of the 731 miles of roads only 50 miles are metalled, but even these roads have not sufficient cross drainage works. The others are simple fair weather unstabilised earthen roads having very few cross drainage works.

Village Water supply:—Government under its Resolution, Health and Local Government Department No. S. 92, dated 24th April 1947 has sanctioned a scheme for providing drinking water to villages with a population of 200 and above and in backward areas in villages with a population of 100 and above which lack an adequate supply of drinking water. In the Broach district the village water supply works in the talukas of Vagra, Amod, Dediapada, Sagbara and Nandod are in the charge of the Public Works Department. The works in other talukas are in the charge of the District Local Board. The District Local Board and the Public Works Department are carrying out the policy of Government by the construction of new wells and repairs to old wells and tanks.

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Health and Sanitation:—The District Local Board, Broach, has not appointed a Health Officer nor has it maintained any health staff under it. The District Health Officer looks to the arrangements in connection with the control of epidemics. The Board, however, bears the expenditure for the appointment of inoculators, extra vaccinators, supplies of vaccine and other drugs for inoculations and mass-vaccination in times of epidemics. Preventive and curative measures are carried out by the Public Health staff and the extra staff appointed with the consent of the board. In addition, 13 dispensaries and 18 Subsidized Medical Practitioner centres are run by the board.

Fairs:—The following important fairs are held in Broach district: —

	Taluka.	*Town or village.*	*Remarks.*
1.	Broach	Shuklatirth	Yearly
2.	Nandod	Sulpan	Yearly
3.	Broach	Kadod	After every 18 years
4.	Broach	Bhadbhut	After every 18 years

The District Health Officer, Broach, undertakes the organisation of the sanitary arrangement with the help of the Mamlatdars at the above fairs except the fair at Shuklatirth which is managed by the Sarpanch of the Village Panchayat, Shuklatirth, with the help of the District Local Board. Sufficient supply of pure drinking water during the period of the fair is made available by the sanitary staff of the Public Health Department and the extra charge in this connection including other sanitary arrangements, is met from the grant placed at the disposal of the District Health Officer by the Director of Public Health for the Government of Bombay, Poona, in consultation with the Collector, Broach.

Other Amenities:—There are eleven dharmshalas managed by the District Local Board. There are libraries in big villages of the district.

Village Panchayats.

Village Panchayats.—Village panchayats form local units of administration for villages. Under the Bombay Village Panchayats Act (VI of 1933), as amended up to 28th January 1954, in every local area which has a population of not less than 2,000 a panchayat has to be established. It is also permissible for the State Government to direct the establishment of a panchayat in a local area having a population of less than 2,000. In accordance with this provision, Government has decided that a panchayat should be established in a village with a population of 1,000 and over if there is a spontaneous demand for it from the villagers. In revenue villages with a population of less than 1,000 fifty residents of the village have to apply for the establishment of a panchayat before the setting up of one is considered by Government. There were 113 panchayats in the Broach district in 1953. The number rose to 582 in 1959.

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The maximum number of members for a panchayat is fifteen and the minimum number seven. The members are to be elected on adult franchise. Till 26th January 1960 (i.e. till the expiration of ten years from the commencement of the Constitution of India), the State Government has been given power to reserve seats (in joint electorates) for the representation of women, Scheduled Castes and Scheduled Tribes. However, no seats may be reserved for the Scheduled Castes and Scheduled Tribes unless Government is of opinion that the reservation is necessary having regard to the population in the village of such castes and tribes. The term of office of panchayats is four years, which may be extended up to five years by the Collector when occasion demands. Every panchayat has to elect a *sarpanch* and a deputy *sarpanch* from among its members. The *sarpanch* presides over the *panchayat* and is also the executive of the panchayat. Every *panchayat* has also to appoint a secretary, whose qualifications, powers, duties, remuneration and conditions of service (including disciplinary matters) are prescribed by Government. Government pays three-fourths of the salary and allowances of the secretary.

Section 26 of the Village Panchayats Act lays down that so far as the village funds at its disposal will allow and subject to the general control of the District Local Board, it shall be the duty of a panchayat to make reasonable provision within the village in regard to the following matters: —

(a) supply of water for domestic use;

(b) cleansing of the public roads, drains, bunds, tanks and wells, etc.;

(c) removing obstructions and projections in public streets and places;

(d) construction, maintenance and repair of public roads, drains, bunds and bridges;

(e) sanitation, conservancy, prevention and abatement of nuisances, and disposal of carcasses;

(f) preservation and improvement of public health;

(g) maintenance and regulation of the use of public buildings, grazing lands, forest lands, tanks and wells, vesting in or under the control of the panchayat;

(h) lighting of the village;

(i) control of fairs, bazars, slaughter houses and cart stands; and

(j) provision, maintenance and regulation of burning and burial grounds.

Under section 26A of the Act, it is competent to a panchayat

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to make provision within the village in regard to the following among other matters:—

(a) crop experiments;

(b) construction and maintenance of slaughter houses;

(c) relief of the destitute and the sick;

(d) improvement of agriculture;

(e) co-operative farming;

(f) improvement of cattle and their breeding and general care of livestock;

(g) establishment of granaries;

(h) village libraries and reading rooms;

(i) promotion, improvement and encouragement of cottage industries;

(j) construction and maintenance of public latrines;

(k) establishment and maintenance of markets; and

(l) watch and ward of the village and the crops therein.

Under section 28 of the Act, when sufficient funds for the purpose are placed at the disposal of the panchayat by the District Local Board, the panchayat is under an obligation to—

(a) supervise the labour employed by the board on works within the village;

(b) supervise repairs to dharamsalas;

(c) manage and maintain cattle ponds; and

(d) execute such works as are entrusted to it by the board

Subject to such conditions as the State Government may impose it is also competent to a panchayat to perform other administrative duties, including the distribution of irrigation water, that may be assigned to it by the State Government after consultation with the District Local Board.

Under section 89 of the Act, every panchayat is under an obligation to levy a house tax and tax on lands not subject to payment of agricultural assessment at rates prescribed by Government, and it is competent to levy all or any of the following taxes or fees at such rates and in such manner and subject to such exemptions as may be prescribed by Government, namely,—

(i) pilgrim tax;

(ii) tax on fairs, festivals and entertainments;

(iii) octroi;

(v) tax on marriages, adoptions and feasts;

(v) subject to the provision of article 276 of the Constitution, a tax on the following professions, trades and callings, namely (a) shop-keeping and hotel-keeping, (b) any trade or calling (other than agriculture) which is carried on with the help of machinery run by steam, oil, electric power, or manual labour;

(vi) tax on premises where machinery is run by steam, oil, or electric power for any purpose other than a domestic or agricultural purpose;

(vii) fee on markets and weekly bazars;

(viii) fee on cart stands;

(ix) fee for supply of water from wells and tanks vesting in it for purposes other than domestic use;

(x) general sanitary tax:

(xi) special sanitary cess;

(xii) toll on vehicles and animals;

(xiii) general water rate;

(xiv) special water rate;

(xv) fees for watch and ward and protection of crops; and

(xvi) tax on brokers and *dalals* in the cattle markets. It is also laid down that every panchayat shall levy any one of the above taxes as may be prescribed by Government in regard to the panchayat.

A panchayat is also empowered to levy any other State Tax which has been approved by the District Local Board and sanctioned by Government. The Collector of Broach has selected octroi for 14 panchayats and a tax on marriages, adoptions, and feasts for the remaining panchayats. All the panchayats levy the compulsory taxes.

Section 90 of the Act gives the District Local Board power to compel a panchayat to levy or increase any of the taxes or fees specified if it appears to the board that the regular income of the panchayat falls below what is necessary for the proper discharge of the obligatory duties of the panchayat.

The State Government makes every year a grant to every panchayat equivalent in amount to 15 per cent. of the ordinary land revenue or 25 per cent. of the local fund cess realised in the previous year within the limits of the village, whichever is greater.

Nyaya Panchayats.

Unlike other local self-governing units, every village panchayat is empowered to constitute a body called *nyaya panchayat* to try petty civil suits and criminal cases. The nyaya panchayat is composed of five members elected by the panchayat at its first meeting out of its members. It elects its chairman from among its members and its term of office is co-extensive with that of the panchayat. The State Government has powers to remove any member of the nyaya panchayat for reasons of misconduct in the discharge of his duties,

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or of any disgraceful conduct, or for neglect, refusal or incapacity in regard to the performance of his duties.

The secretary of the village panchayat acts as the judicial clerk of the nyaya panchayat. Conviction by a nyaya panchayat is not deemed to be previous conviction for the purposes of the Indian Penal Code. Under Government Notification No. 4514/4(26) of the Home Department, dated 24th November 1942, all the nyaya panchayats in the Broach district are invested with first stage powers, namely,—

(a) power to try suits of the nature described in sub-section (1) and (2) of section 39 of the Village Panchayat Act; and

(b) power to take cognizance of and try offences under section 269, 277 and 283 of the Indian Penal Code, and section 24 of the Cattle Tresspass Act and breaches of bye-laws punishable under the Village Panchayats Act, 1933.

Pleaders are not permitted to appear on behalf of any party in any suit or case before a nyaya panchayat. Appeals are allowed to the District Court in civil suits and to the Sessions Court in criminal cases.

Powers of control over panchayats are given to the Collector and the District Local Board. Both of them have concurrent powers to call for information and to compel the panchayat to take into consideration any objection they have to any acts of the panchayat, either of commission or of omission, or any information which necessitates the commission of any act by the panchayat. They can also compel the panchayat to reduce the number of the staff maintained by it or the remuneration paid to them. In addition, the Collector has powers of suspension and prohibition in respect of the execution of any order or resolution of a panchayat which, in his opinion, is likely to cause injury or annoyance to the public or to lead to a breach of the peace. In cases of emergency, the Collector may also provide for the execution of any work or the doing of any act which a panchayat is empowered to execute or do, and the immediate execution or doing of which is, in his opinion, necessary for the health or safety of the public. and may direct that the expenses shall be forthwith paid by the panchayat.

The District Local Board is authorised to carry out each year the audit of the accounts of panchayats and forward a copy of the audit notes to the Collector. If it appears to the board that a panchayat has made default in the performance of its obligatory duties, it may order the duty to be performed within a specified period, and, if the duty is not performed within that period, the board can appoint some person to perform it and direct that the expense be paid by the defaulting panchayat.

The State Government is also given power to carry out at the cost of the panchayat any of the panchayat's obligatory duties when it appears to it that the District Local Board has neglected to take action. The State Government has also powers, after consultation with the District Local Board, to dissolve or supersede a panchayat, if, in its opinion, the panchayat had exceeded or abused its powers or made persistent default in the performance of its obligatory duties; or persistently disobeyed any of the orders of the Collector. If a panchayat is superseded, all its powers and duties will be exercised and performed by a person or persons appointed by the State Government.

In pursuance of a resolution, dated the 13th September 1950, Government has appointed in the Broach district a special officer of the grade of Mamlatdar for the development of village panchayats on sound and proper lines. This officer is authorised, under section 95(3) of the Village Panchayats Act, to exercise the powers of a Collector and of a District Local Board under section 94(1) of the Act. Several duties have also been placed on this officer, and he is expected to do everything that is possible to popularise village local self-government and to make the working of village panchayats really effective. An annual report on the activities of panchayats has to be prepared by him and submitted to the Collector before the 15th of May, and, within a fortnight thereafter, the Collector has to forward that report to the Government with his own remarks.

Justice and Peace.

CHAPTER 14—JUSTICE AND PEACE.

THE JUDICIAL DEPARTMENT.

JUDICIAL. DISTRICT JUDGE.

THE DISTRICT JUDGE, BROACH, is the highest judicial authority in the district and presides over the District Court. Under Article 233 of the Constitution of India, appointments, postings and promotion of District Judges are to be made by the Governer in consultation with the High Court; and under Article 234, appointments of persons other than District Judges to the Judicial Service are made by the Governor in accordance with rules made by him after consultation with the State Public Service Commission and with the High Court. Under Article 235, the control over the District Court and the Courts subordinate to it, including the posting and promotion of and the grant of leave to persons belonging to the Judicial Service and holding any post inferior to the post of District Judge is vested in the High Court.

Civil Courts.

The District Court is the principal court of original jurisdiction in the district and it is also a court of appeal from all decrees and orders up to the value of Rs. 10,000, passed by the subordinate courts from which an appeal can be preferred. The District Judge exercises general control over all the civil courts and their establishments and inspects the proceedings of these courts.

Subordinate to the District Judge are two cadres of Civil Judges, Junior Division and Senior Division. The jurisdiction of a Civil Judge, Junior Division, extends to all original suits and proceedings of a civil nature wherein the subject-matter does not exceed Rs. 10,000 in value, while that of a Civil Judge (Senior Division) extends to all original suits and proceedings of a civil nature, irrespective of the value of the subject-matter. Appeals in suits or proceedings wherein the subject-matter does not exceed Rs. 10,000 in value are taken to the District Court, while in those wherein the subject-matter exceeds in value Rs. 10,000 are taken direct to the High Court.

There are five Courts of Civil Judges, one of Senior Division at Broach and four of Junior Division at each of the following places, viz. Ankleshwar, Jambusar, Jhagadia and Rajpipla.

Criminal Courts.

The District Judge is also the Sessions Judge of the district. The Sessions Judge tries criminal cases which are committed to his Court by Judicial Magistrates after preliminary enquiry and hears appeals against the decision of the subordinate magistrates.

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The Sessions Judge may pass any sentence authorised by law, but any sentence of death passed by him is subject to confirmation by the High Court.

JUDICIAL. DISTRICT JUDGE. Criminal Courts.

The Bombay Separation of Judicial and Executive Functions Act (XXIII of 1951) has classified the magistracy of the State into two categories viz. (1) Judicial Magistrates and (2) Executive Magistrates. Judicial Magistrates are of the following classes:—(1) Presidency Magistrates; (2) Magistrates of the First Class; (3) Magistrates of the Second Class; (4) Magistrates of the Third Class; (5) Special Judicial Magistrates. Executive Magistrates fall under the following classes:— (1) District Magistrates; (2) Sub-Divisional Magistrates; (3) Taluka Magistrates; (4) Presidency Magistrates specially empowered by the State Government; and (5) Special Executive Magistrates. The State Government may, in consultation with the High Court, direct any two or more Judicial Magistrates to sit together as a Bench and invest it with the powers of a Magistrate of the First, Second or Third Class.

Presidency Magistrates work in Greater Bombay and Special Judicial Magistrates are appointed by the State Government in consultation with the High Court to try particular cases or classes of cases or cases generally in any local area. Special Executive Magistrates are appointed by the State Government for particular areas or for the performance of particular functions.

All Judicial Magistrates and Benches of Judicial Magistrates are subordinate to the Sessions Judge who may from time to time make rules or give special orders as to the distribution of business among them.

All Executive Magistrates are subordinate to the District Magistrate. Their powers are detailed in paras III-A, IV and V of Schedule III of the Criminal Procedure Code. Appeals from orders requiring security for keeping the peace or for good behaviour, however, lie from Executive Magistrates to the Court of Sessions (Section 406 Criminal Procedure Code). The State Government has power by notification to direct that such appeals from orders made by a magistrate other than the District Magistrate shall lie to the District Magistrate and not to the Court of Sessions. Again, under Section 406 A of the Code any person aggrieved by an order refusing to accept or rejecting a surety under Section 122 may appeal against such order if made by a District Magistrate, to the Court of Sessions. Under Section 435 (4), the High Court is empowered to call for and examine the record of any proceeding under section 143 (prohibition of repetition of nuisance), 144 (temporary order in urgent cases of nuisance or apprehended danger) and 145 (procedure where disputes as to immoveable property is likely to cause breach of the peace), even though such proceeding was before an Executive Magistrate.

CHAPTER 14. — Justice and Peace. JUDICIAL. DISTRICT JUDGE. Criminal Courts

The ordinary powers of the Magistrates of the Third, Second and First Classes are detailed in Parts I, II and III respectively in Schedule III of the Criminal Procedure Code (Act V of 1898). They may be invested with additional powers by the State Government in consultation with the High Court. They are competent to pass the following sentences:—

(a) Magistrate of the First Class.	1. Imprisonment for a term not exceeding two years including such solitary confinement as is authorised by law. 2. Fine not exceeding Rs. 1,000. 3. Whipping.
(b) Magistrate of the Second Class.	1. Imprisonment for a term not exceeding six months, including such solitary confinement as is authorised by law. 2. Fine not exceeding Rs. 200.
(c) Magistrate of the Third Class.	1. Imprisonment for a term not exceeding one month. 2. Fine not exceeding Rs. 50.

The Bombay Separation of the Judicial and Executive Functions Act came into force on 1st July 1953. There were in July 1953 five Resident Magistrates in the Broach District of whom two were working in Broach and one each in Rajpipla, Jambusar and Jhagadia. At Ankleshwar a separate Court of Judicial Magistrate was set up, while the Civil Judge, Ankleshwar, was invested with jurisdiction to try criminal cases arising from the Police Station of Hansot. Subsequently, the separate Courts of Resident Magistrates at Jambusar, Rajpipla and Jhagadia were abolished from 1st September 1953 and all criminal work of these three Talukas was entrusted to the respective Civil Judges of those Talukas. Thus there are three Courts of Judicial Magistrates, two at Broach and one at Ankleshwar, and the Civil Judges, Junior Division at Ankleshwar, Jambusar, Rajpipla

There are in all three Juvenile Courts in Broach district, they are at Broach, Rajpipla and Jambusar. The Judicial Magistrate, First Class, 1st Court, Broach, is the Presiding Officer of the Juvenile Court at Broach, while the Civil Judge and Judicial Magistrates at Rajpipla and Jambusar are the Presiding Officers of the Juvenile Courts at Rajpipla and Jambusar respectively.

The Judicial Magistrate, First Class, 2nd Court, Broach, has jurisdiction to try cases arising from Broach Rural and Nabipur Police Stations. He holds his Camp Court at Vagra. The Civil

Judge and Judicial Magistrate, First Class, Ankleshwar, holds his Criminal Court at Hansot.

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Justice and Peace.

JUDICIAL.

DISTRICT JUDGE.

There is one Honorary Second Class Magistrate in the district at Broach (1953).

Other Law Officers.

The following are the other Law Officers of Government functioning in the Broach district, viz. District Government Pleader and Public Prosecutor, Assistant Government Pleader and Assistant Public Prosecutor, and sub-Government Pleaders, one at each of the following places, viz. Ankleshwar, Jambusar, Rajpipla and Jhagadia.

Number of Legal Practitioners.

In 1953, there were 105 legal practitioners practising in Broach district.

Nyaya Panchayats.

Under the Bombay Village Panchayats Act (VI of 1933) Nyaya Panchayats have been formed in a number of villages and these institutions are empowered to try petty civil suits and criminal cases. The constitution and powers of the panchayats are detailed in Chapter VI, Sections 37 to 58-A of the Bombay Village Panchayats Act, 1933. Appeals from these Courts are allowed to the District Court in civil suits and to the Sessions Court in criminal cases.

Statistics of Civil Courts.

In the various Courts of Broach district, at the beginning of the year 1953, there were 754 suits pending. During the same year, 1,453 suits were instituted, 35 revived, 18 otherwise received and 1,337 suits were disposed of, and the suits pending at the end of the year were 923.

Of the 1,337 suits disposed of, 238 were disposed of without trial; 301 exparte; 12 on admission of claims; 391 by compromise; 345 after full trial; 1 on reference to arbitration; and 49 by transfer to other courts.

There were 134 Civil Appeals pending at the beginning of the year 1953. During the year 1953, 87 appeals were instituted; 97 disposed of, and the balance pending at the end of the year was 124.

Statistics of Criminal Courts.

There were 51 Sessions Cases reported to the Sessions Court during the year 1953. The number of persons under trial was 109. The cases of 101 persons were disposed of during the year. Of these, 60 persons were acquitted or discharged and 41 were convicted. The sentences passed by the Court of Sessions were as follows: One person awarded death sentence; two persons awarded transportation; and 38 persons sentenced to imprisonment.

The following are the figures relating to the Criminal Courts of Broach district in 1953:—

I.	(a) Offences reported	9,507
	(b) Persons under trial	15,969

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Statistics of Criminal Courts.

	(c) Persons whose cases were disposed of	11,551
	(d) Persons discharged or acquitted.	4,916
	(e) Persons convicted	5,811
	(f) Persons committed to Sessions or referred to Higher tribunals.	90
	(g) Persons died or transferred to another province.	14
II.	(a) Persons tried	11,551
	(b) Persons convicted	5,811
	(c) Persons awarded:—	
	(i) death sentence	Nil
	(ii) transportation or penal servitude.	Nil
	(iii) imprisoned	1,507
	(iv) fined	3,978
	(v) whipped	Nil
	(vi) asked to give security.	820.

The total receipts of the Judical Department in the Brotch District for the year 1953 including court fees, realized on probate and letters of administration and miscellaneous cash receipts credited to Government amounted to Rs. 1,05,355-13-0. Its total expenditure for the same year including salaries and allowances amounted to Rs. 2,19,796-0-0.

POLICE DEPARTMENT.

POLICE.

The primary functions of the Police are the preventation and detection of crime; maintenance of order; apprehension of offenders: escorting and guarding prisoners, treasure, private or public property of which they may be placed in charge; and the prosecution of criminals. They have, however, various other duties to perform, of which some such as control of traffic, censorship of plays and other performances, service of summonses in criminal cases and destruction of stray dogs are imposed upon them by law, and others, such as aid to refugees and pilgrims and passport and naturalisation enquiries, are entrusted to them for administrative reasons.

Organisation.

Under section 17(1) of the Bombay Police Act (XXII of 1951), the District Superintendent of police and the Police Force of the district are under the control of the District Magistrate. While all questions of policy and of the administration of law within the district are for the District Magistrate's decision, it is the province of the Inspector-General of Police of Bombay State to watch over the recruitment, education, housing and equipment of the police and so to regulate their internal organisation and their methods of working as to render them the most efficient instrument possible for the use of the District Magistrate in the safeguarding of his charge.

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POLICE.

Organisation.

Under the Inspector-General of Police are three Deputy Inspectors General of Police each in charge of one of the following divisions, viz., (1) Northern Range, (2) Southern Range and (3) Criminal Investigation Department. Below these officers are the District Superintendents of Police in charge of districts. Under the law as it stands at present, the Superintendent of Police is an assistant of the District Magistrate for police purposes, although in matters falling within the jurisdiction of the Inspector-General of Police, he is subject to the general control and direction of the superior police officers. In short, while the District Police forces are under the Inspector-General of Police for the sake of administrative control, the force in each district is under the working control of the District Magistrate.

The District Superintendent of Police, Broach, is the executive head of the Police Force of the district. In addition to the Police Headquarters at Broach, there are in the district 17 Police Stations and 37 Out-Posts under them. Out of 17 Police Stations, four are town Police Stations viz., those at Broach, Rajpipla, Ankleshwar and Jambusar, eight Taluka Police Stations, five Mahal Police Stations and two Sub-Police Stations.

For the recruitment and training of the subordinate police and other branches of work, there is one head-quarters at Broach for the whole district and it is in charge of a Home Inspector of Police. This headquarters also deals with all matters concerning arms and armament of the whole police force in the district and supply of clothing articles and accoutrement to the subordinate police.

Strength.

The total sanctioned strength of the permanent police in 1953 was 885, composed of 19 Officers--a Superintendent of Police, a Deputy Superintendent of Police, two Inspectors and 15 Police Sub-Inspectors), 171 Head Constables and 695 constables. The strength of the temporary Police was 404 comprising 14 Officers—one Inspector, and 13 Sub-Inspectors), 102 Head Constables and 288 Constables. The armed police in the permanent staff numbered 377 and in the temporary staff 160. The total strength of the police, both permanent and temporary Police was 404 comprising 14 Officers—one Inspector, and 13 "armed". In 1953 the annual cost of the maintenance of the permanent police was Rs. 9,83,429 and of the temporary Police Rs. 3,13,960 giving a total cost of Rs. 12,97,389. The proportion of the total strength to the area and population worked out at one police man to 2.31 square miles and 562.13 persons.

Regular Duties.

The duties of the various members of the police forces are detailed below.

The Superintendent of Police, who is the executive head of the Police Force, is invested with the direction and control of the police under the command and control of the District Magistrate. His primary duties are to keep the force under his control properly trained, efficient and contended, and to ensure, by constant supervision, that the prevention, investigation and detection of crime in his district are properly and efficiently dealt with by the force.

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Regular Duties.

The Assistant Superintendents of Police or Deputy Superintendents of Police, i.e., officers in-charge of Sub-Divisions, are responsible for all work in connection with crime in their charges. Under the general orders of the Superintendent, they are responsible for the efficiency and discipline of the officers and men in their divisions and hold detailed inspections of Police Stations and Out-Posts in their charges at regular intervals.

The Inspectors are practically entirely employed on work regarding crime and supervision of bad characters and gangs in their sub-divisions. They are also utilised for supervising and co-ordinating similar work of the different police stations in their sub-divisions.

There is a Home Inspector at the District Headquarters, Broach. He is the office superintendent, with duties somewhat different from those of a Divisional Inspector. He supervises the work of the Head Police Office, and of the town and the Headquarters Police during the absence of the District Superintendent and does all routine work in the Head Office for the District Superintendent.

The Sub-Inspector of Police is the Officer in charge of the Police Station. He is responsible for the prevention and detection of crime in his area and for seeing that the orders of the superiors are carried out and the discipline of the police under him is properly maintained.

Head Constables are subject to the orders of the Sub-Inspectors placed over them and of the superior officers of the Police Force. They are to report to the Sub-Inspector all crimes in their beats and also to assist him in the investigation and detection of crime. When in charge of a particular post or circle of villages, the Head Constable acts in all police matters in concern with the heads of the village police. When attached to the Police Station, he holds charge in the absence of the Sub-Inspector and looks to all routine work including investigation of crime.

The constables perform such duties as they may be ordered by the Head Constable and superior Police Officers.

Recruitment.

Appointments of Assistant Superintendents of Police are made by the Government of India on the recommendation of the Union Public Service Commission. Before being posted to regular duty, they are trained in the Central Police Training College, Mount Abu. The Deputy Superintendents of Police are appointed by the Bombay Government, 70 per cent. by promotion of officers of merit from the lower ranks of the district police force and 30 per cent. by direct recruitment. Direct recruits are, on recruitment, attached to the Police Training School, Nasik. After completion of their training, these officers are attached to districts for practical training for a period of one year prior to their confirmation.

Inspectors of Police are appointed by the Inspector-General of Police. Appointments are, as a rule, made by promotion of Sub-Inspectors, direct appointments being very rare.

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POLICE.
Recruitment.

Recruitment of Sub-Inspectors is made by the Inspector-General of Police both by the promotion of officers from the lower ranks of the district Police Force and by direct recruitment. Candidates for direct recruitment may be either from outside the police or from the Police Department. These candidates are in the first instance selected for training in the Police Training School, Nasik, as Sub-Inspectors. The selection is made by the Inspector-General of Police assisted by a Committee of Deputy Inspectors-General of Police and the Principal, Police Training School, Nasik.

The police constables are recruited directly, and the head constables generally from the ranks of constables. However, to attract better men, recruitment of head constable is made direct from duly qualified candidates up to one-third of the vacancies.

Recruiting does not meet with a satisfactory response from the local people in respect of the constabulary and great difficulty is experienced in obtaining suitable men. Those who come from other districts try, after training, to get into the force of the district from which they come. Others find the training much too hard and not of interest and either resign or abscond. It is from West Khandesh that the constabulary of Broach district is principally recruited.

The armament of the Broach district police in 1953 consisted of 535 rifles of .303″ bore, 440 muskets of .410″ bore and 54 revolvers including 24 of ·455″ bore, 29 of ·38″ bore and of ·450″ bore, and five Thompson Machine Guns. In addition, the Home Guards had 50 rifles of ·410″ bore, and seven Revolvers of ·450″ bore.

There were five motor vehicles, one Static wireless Station at Broach, and three Taluka Wireless Stations at Broach, Dediapada and Sagbara.

There were five motor vehicles, one Static Wireless Station at bulary, stationed at Baroda, consisting of 1,015 personnel including officers. This group with two other similar groups located at Dhond and Belgaum* and another group of 2,000 located in Greater Bombay, is meant to make the State self-sufficient in respect of internal security. This force is highly trained and mobile and is provided with wireless sets and motor-transport.

The Anti-Corruption Branch of the Police Department stationed at Ahmedabad has jurisdiction over the Broach district.

Railway Police.

Railways running through the district are under the charge of a Superintendent of Police, who has a Sub-Divisional Officer to assist him. His charge, however, covers the Western Railway lines running through the whole State. The Superintendent is under the general control of the Range Deputy Inspector-General of Police and the

* Before the reorganization of states in November 1956.

CHAPTER 14. — Justice and Peace. POLICE. Railway Police.

Inspector-General of Police. He must, however, obey the instructions of the General Managers of the Railway, but may appeal to the Inspector-General afterwards if appeal, in his opinion, is necessary.

In 1953 the following were the figures of crime in Broach district.

	No.
(A) Total Number of non-cognizable cases.	3,324
(B) Total number of cognizable cases reported to the Police	2,870
(C) Total number of cognizable cases-dealt with by Magistrates.	2,372

In 1953, there were five Police Procecutors in the district. The total number of cases conducted by the prosecuting staff (exclusive of cases compounded, withdrawn or pending) was 1,592 out of which 1,272 ended in conviction. The total number of cases conducted by the executive staff was 1,028 out of which 845 ended in conviction.

Housing and Hospital.

Quarters have been provided for 713 members of the Police Force in the district. There are no special Police Hospitals in the district.

Village Police.

The stipendiary police of the district is helped by the village police. Under the Bombay Village Police Act (VIII of 1867), the control of the village police vests in the District Magistrate, and not in the District Superintendent of Police. The District Magistrate may, however, depute any of his authority to the District Superintendent of Police. There are 1,180 villages in the district. Each village or group of villages has a Police Patel. The Police Patel is required to collect information regarding suspicious looking strangers and send it to the police station. He has to keep a strict watch over the movements of notorious characters under surveillance of the police. When the patrolling police goes to the village, he has to give all the information he possesses about events in the village. It is the duty of the village police patel to render assistance to any sick traveller and to maintain law and order in the village. He is assisted in his work by the village watchmen (vartanias). In 1953, the village police in the district rendered assistance to the police in the detection of 12 cases.

Home Guards.

In pursuance of the Bombay Home Guards Act (III of 1947), the Broach District Home Guards Unit was started in 1947. It is a voluntary body established to supplement the ordinary police force for the protection of person and property, public safety, and for such other service to the public as it may be called upon to perform.

In charge of the Home Guards organisation in the State is the Commandant General, and under him are Commandants in each

district who control the district staff. The appointments of the Commandant General and Commandants are made by Government from among suitable non-officials and the posts are purely honorary, carrying no remuneration. The organisation is non-political and non-communal. All members have, on enrolment, to sign a pledge to the effect that they will well and truly serve the Government of Bombay without fear or affection, malice or ill-will, or communal or political bias, and will assist to the best of their ability in the maintenance of peace and prevention of crime against person and property. Any person who is between the ages of 20 and 50 and has studied up to Standarad IV in any of the regional languages is eligible for enrolment.

The Home Guards are trained in squad drill, lathi drill, use of arms, control of traffic, elementary law, mob-fighting, unarmed combat and guard and escort drill. They are also trained in first aid and fire-fighting. They are encouraged to take up social work. When called out on duty, they enjoy the same powers privileges and protection as an officer of the police force appointed under any Act for the time being in force. Their functions consist mainly of guarding public buildings, patrolling for the prevention of crime and assisting the police in their ordinary duties. They are given uniforms and are paid a duty allowance of Rs. 2-8-0 per diem whenever they are called out on duty. In Broach, a conveyance allowance up to Rs. 2-4-0 per mensem is given for attending parades, etc.

In Broach District, in 1953, there were 239 Home Guards, 74 at Broach, 55 at Jambusar and 110 at Rajpipla.

Village Defence Parties.

In addition, there are Village Defence parties. The scheme is modelled on the ancient system of Gam Senas, under which at the beat of a drum the villagers with weapons in their hand helped one another against outside aggression.

Each village defence organisation is under an officer known as the Kotwal. At the head of the organisation in the taluka is the "Assistant Village Defence Officer". The District Superintendent of police is in charge of the whole organisation in the district. The Village Defence Officer who is usually a Sub-Inspector of Police is assisted by a "Joint Village Defence Officer," who is always a non-official. Similarly, the Assistant village Defence Officer is assisted by a non-official "Joint Assistant Villlge Defence Officer." The non-official officers perform purely honorary service and receive no remuneration. They are appointed by the District Superintendent of Police and are subordinate to him.

Every able-bodied villager between the age group of 20 and 50 is eligible for membership of a party, provided he is recommended by the Kotwal and other officers. The training given to members of the village defence parties is not as intensive as that given to members

CHAPTER 14. — Justice and Peace. POLICE. Village Defence Parties.

of the home guard units. They are, however, instructed in the use of arms, drill and lathi drill and are trained to gather at a given place at the beat of a drum with available weapons and to defend themselves. No uniforms are issued to them, but whistles and arm-bands are given. They do not exercise any powers as the Home Guards do. They are mere citizens helping one another to defend themselves.

In Broach district, in 1953, there were, 1,151 villagers in which village defence parties had been organised, and the total strength of the parties was 17,286. The non-official Joint Village Defence Officer of the district was assisted by one sub-inspector of police and six head constables in organising and runing the parties.

JAIL DEPARTMENT.

JAILS. Location of Jails.

There is no District Prison in Broach District. Prisoners in the district sentenced to imprisonment over three months are transferred to Baroda Central Prison to serve out their sentences and those sentenced to three months or less are retained in the Headquarter Sub-Jails at Broach and Rajpipla. There are in addition six taluka Sub-Jails where undertrials and prisoners up to one week's imprisonment are confined, and they are located at the following taluka headquarters, viz., Amod, Ankleshwar, Hansot, Jambusar, Jhagadia, and Vagra.

There are also 18 police lock-ups located at (1) Broach City, (2) Ankleshwar, (3) Rajpipla, (4) Broach Rural, (5) Hansot, (6) Jhagadia, (7) Jambusar, (8) Nabipur, (9) Vedash, (10) Sarod, (11) Amod, (12) Vagra, (13) Kavi, (14) Bhalod, (15) Valia, (16) Sagbara, (17) Dediapada and (18) Garudeshwar.

The Headquarter Sub-Jails at Broach and Rajpipla are in charge of whole time departmental Jailors, who are subordinate to the Superintendents of the respective jails. The Huzur Mamlatdar of Broach is the Superintendent of Broach Sub-Jail and the Mamlatdar, Rajpipla, holds charge as the Superintendent, Rajpipla Sub-Jail. They visit the Sub-Jail daily and look after the executive management of these jails in all matters, including discipline, labour expenditure etc., subject to the orders of the District Magistrate and final control of the Inspector General of Prisons.

The Jailor's foremost duty is to secure the custody of the prisoners committed to his charge and to see that proper discipline is maintained amongst the prisoners and Jail Guards.

The following staff is sanctioned for Broach and Rajpipla Sub-Jails.

Broach: One Jailor, one junior clerk, one lance naik and a sepoy.

Rajpipla: One Jailor, one junior clerk, one lance naik, two sepoys and a sweeper.

Justice and Peace.
JAILS.
Location of Jails.

Matrons are engaged temporarily whenever female prisoners are admitted.

At taluka places the Mamlatdar or Mahalkari works as Superintendent and one of his Junior Clerks looks after the duties of the Jailor, and he is paid Rs. 5 per month as special pay if the daily average population of the Sub-Jail exceeds six. The Bombay Medical Service Class III Officer attached to the local civil hospital or dispensary holds charge as Medical Officer of the Sub-Jail and he visits the Sub-Jail twice a week or oftener and looks after the health of the prisoners and general sanitary conditions.

The guarding work at all sub-jails is done by the district police force.

There is accommodation for 84 males and four females in Broach Sub-Jail and 76 males and four females in Rajpipla sub-jail. The daily average population of convicts and undertrials in those two Sub-Jails during 1953 was as below:—

	Convict		Under-Trials		Total	
	M	F	M	F	M	F
Broach ..	48	—	35	—	83	—
Rajpipla ..	38	—	23	—	61	—
	86	—	58	—	144	—

The average cost of dietary per prisoner per day during 1953 was Rs. 0-9-0. As only short termers are confined in these two Headquarter Sub-Jails, cot tape and narrow tape weaving and weaving of convict cloth only is undertaken. Such of the convicts as are not employed on these works are employed in cooking, gardening, sweeping etc. No convicts are employed on extra-mural works. The average earning per convict in 1953 came to Rs. 0-3-0 per day.

There is a Board of Visitors for all sub-jails, headquarter and Taluka Sub-Jails. The members pay visit to the sub-jails on the days allotted and also meet four times in the year in January, April, July and October and make joint inspection of the sanitary arrangements, food, etc., and also hear complaints from the prisoners.

The Headquarter Sub-Jails at Broach and Rajpipla maintain small libraries for prisoners.

Adolescent criminals sentenced to detention under the Bombay Borstal Schools Act are sent to the Borstal School, Dharwar. Other Juveniles and female prisoners are transferred to the Baroda Central Prison.

JUVENILES AND BEGGARS DEPARTMENT

JUVENILES AND BEGGARS DEPARTMENT.
Legislation.

In Bombay State there are five pieces of social legislation, the aim of three of which is to protect children and to prevent juveniles,

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adolescents and young adults from becoming habitual criminals. The latter three are: (1) the Bombay Children Act (LXXI of 1948), (2) the Bombay Borstal School Act (XVIII of 1929); and (3) the Bombay Probation of Offenders Act (XIX of 1939). The remaining two are the Bombay Beggars Act (XXIII of 1945) for prevention of begging, and the Bombay Habitual Offenders' Restriction Act (LI of 1947) dealing with prevention of crime and treatment of habitual offenders. While the Children Act deals with children below 16 years of age, the Borstal School Act is applied to adolescents between 16 and 21, and the probation of Offenders Act provides for offenders of any age, especially those between 21 and 25 and those who have not committed offences punishable with death or transportation for life.

Children Act.

The Bombay Children Act consolidates all previous laws relating to the custody, protection, treatment and rehabilitation of children and youthful offenders and also for the trial of youthful offenders. It gives protection to four principal classes of children, viz., (1) those who are neglected, destitute or living in immoral surroundings and those in moral danger; (2) uncontrollable children who have been reported as such by their parents, (3) children especially female children who have been used for begging and other purposes by mercenary persons; and (4) young deliquents who either in the company or at the instigation of elder persons or by themselves have committed offences under the various laws of the land. Such children are taken charge of either by the police or by officers known as "Probation Officers" and in most cases are kept in "Remand Homes". A remand home is primarily meant as a place where a child can be safely accommodated during the period its case is being considered and it is also meant to be a centre where a child's character and behaviour can be minutely observed and its needs fully provided for by wise careful consideration. After enquiries regarding their home conditions and antecedents have been completed, they are placed before special courts known as "juvenile courts" and dealt with according to the provisions of the Children Act. If the home conditions are found to be satisfactory, and if what is needed is only friendly guidance and supervision, then the children are restored to their parents and placed under the supervision of a trained probation officer. If the home conditions are unwholesome and uncongenial, the children are committed to instructions known as "Certified Schools" or "fit person institutions". "Fit person" includes any association established for the reception or protection of children. At these schools or institutions the children receive training according to their individual aptitudes, in carpentry, smithy, book binding, tailoring, agriculture, poultry farming, goat rearing, gardening, cane work, knitting etc. Youthful offenders, when implicated in any offence along with adult offenders, have to be tried separately in juvenile courts without the paraphernalia of criminal courts. The technique employed in juvenile courts is entirely different from that in adult courts. Penal terms are avoided and even the word "punishment" has been dropped from the enactment in

describing the treatment to be noted out. The children are regarded only as victims of circumstances or of adults.

JUVENILES AND BEGGARS DEPARTMENT. Borstal Schools Act.

Adolescent criminals coming under the Borstal Schools Act are sent for detention and training in the Borstal School, Dharwar. Factory work and agriculture form two main heads of vocational training. Weaving, manufacture of furniture and stationery and smithy are some of the other vocations taught. The adolescents sent to this school are given such individual training and other instruction and are subjected to such disciplinary and moral influences as will conduce to their reformation. However, boys found to be too incorrigible or unsociable to be kept in the Borstal School are transferred to the juvenile section of the Prison at Yaravada. Similarly, if the Inspector General of Prisons thinks that any prisoner in the juvenile section can be better treated to his advantage if he is sent to the Borstal School, he is accordingly transferred. Both juveniles and adolescents, when they have finished a certain period of residence in the institutions to which they are sent and acquired some proficiency in a trade, are released under a licence as prescribed in the rules to live in their homes or, if they are destitutes, in "after-care hostels" (institutions run by non-official agencies), under supervision, and efforts are made to find employment for them.

Machinery to enforce Legislation.

For the proper enforcement of the legislative enactments mentioned above, machinery, both official and non-official, is provided. The non-official machinery is provided by the Bombay State Probation and After-care Association with a network of affiliated bodies called the District Probation and After-care Associations which are actively functioning in eighteen districts of the State. These associations provide "remand homes" and "after-care hostels" and also employ probation officers to make enquiries regarding the home conditions and antecedents of children and also to supervise the young persons released either directly by courts or on licence from Certified Schools and the Borstal School, Dharwar. As regards offenders dealt with under the Probation of Offenders Act, the work of the District Association consists only in making preliminary enquiries regarding the case of alleged offenders referred to them and carrying on, in selected areas, supervision of offenders released on probation.

The official agency is the Juvenile and Beggars Department. Until 1934, the Juvenile Department as it was then known, was controlled by the Education Department, but from April 1934 it was attached to the Backward Class Department under the control of the Home Department. The Backward Class Officer was designated as Chief Inspector of Certified Schools. In March, 1946, the administration of the Bombay Beggars Act (XXIII of 1945) was added to the duties of the Backward Class Officer. As work increased and the Backward Class Officer could not be expected to devote much attention to the expansion of work under the social laws relating to children, from June 1947, the Juvenile Branch, the Bombay State

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Machinery to enforce Legislation.

Probation and After-care Association, and the Beggars Branch were divorced from the control of the Backward Class Officer and these three branches were constituted into a separate department called "the Juvenile and Beggars Department" under a full time Chief Inspector of Certified Schools and Chief Inspector of Certified Institutions. This officer is under the control of the Education Department of the Secretariat so far as the administration of the Children Act and the Borstal Schools Act is concerned. The Home Department of the Secretariat, which deals with the Beggars Act and the Probation of Offenders Act, guides and controls his activities in relation to these Acts.

So far as Broach district is concerned, the Beggars Act has not yet been applied to any part of it. The Bombay Habitual Offenders' Restriction Act, 1947, has been applied to the district, but no settlement under section 15 of the Act has been established in the district. Habitual Offenders are sent to the settlement at Bijapur.

The Children Act has been applied to the Municipal limits of Broach, Ankleshwar and Jambusar towns, the railway limits of Ankleshwar, Palej and Nabipur railway stations, and the area comprising the talukas of the Rajpipla Sub-division, Amod town, and within a distance of five miles of the limits of Amod town.

The agency in charge of the work of the Juvenile and Beggars Department in the district is the District Probation and After-care Association, Broach, the Honorary Secretary of which performs duties similar to those of the Chief Officer, Poona. He is a non-official elected at the General Meeting of the District Association. In addition to his secretarial work, he keeps a general supervision over the work of the Probation Officers of the District Association. In addition, two Regional Probation and After-care Associations, similar to the District Association, one for Rajpipla and the other for Jambusar, are functioning. At Broach there are two remand homes, one for boys and one for girls. At Jambusar and Rajpipla, there are two boys' remand homes, one for each of the two places.

Probation Officers are appointed in all these places and they are responsible for the work of the remand home. They are subordinate to the honorary secretaries.

There were working in the district in 1954 four stipendiary probation officers, of whom one was a woman. The duties of probation officers are:—

(1) to study the children that are brought before the juvenile court and to submit reports regarding them to the court suggesting a treatment programme;

(2) to supervise the children placed under their supervision by the juvenile court;

(3) to conduct inquiries regarding applications received by the juvenile court;

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(4) to conduct the inquiries referred to the District Probation and After-care Association by other institutions in respect of children and beggars ;

(5) to conduct inquiries regarding children proposed to be released on licence from different certified schools and the Borstal School, Dharwar, and to supervise such children as are released on licence ;

(6) to conduct inquiries and supervision work under the Probation of Offenders Act ; and

(7) to do propaganda work to further the objects of the legislation relating to children and youthful offenders.

Although the Act contemplates the establishment of separate juvenile courts in each district, till 1954 no full time magistrate was appointed for Broach. The local First Class Magistrate at Broach worked as the presiding officer of the Juvenile Court. The Juvenile Court was held once a week to dispose of cases under the Children Act. Government had also appointed two lady honorary magistrates to advise the presiding officer of the Court in respect of the disposal of cases under trial. Juvenile courts had also been established at Jambusar and Rajpipla.

The total annual expenditure of the District Probation and After-care Association for the year 1952-53 was Rs. 23,894-2-9.

Habitual Offenders Restriction Act.

The administration of the Bombay Habitual Offenders Restriction Act has also been allotted to the Juvenile and Beggars Department. The Chief Inspector of Certified Institution is also the Reclamation Officer, Bombay State.

CHAPTER 15.

Revenue and Finance.
LAND RECORDS.
Introduction.

CHAPTER 15—REVENUE AND FINANCE.

THE DEPARTMEHT OF LAND RECORDS.

THE LAND TENURE PREVALENT IN BROACH DISTRICT is *rayatwari*, except for a few inam villages (of Class III and IV (b)). it is based on land survey and soil classification and the settlement of the land revenue for each individual field separately.

The special tenures "Bhagdari" and "Talukdari" (Vanta), which prevailed in this district in 224 villages and 29 talukdari vantas respectively till 1949 were abolished under the Bhagdari and Narwadari Tenures Abolition Act 1949 (Bom. XXXII of 1949)* and the Talukdari Abolition Act (Bom. XLII of 1949) and the Bombay Personal Inams Abolition Act (Bombay LXII of 1953).

Other Inams, viz., Saranjam and Political Inams, Personal Inams and Pargana and Kulkarni Watans have similarly been abolished under recent legislation.

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*(1) *Bhagdari Tenures*:

The Bhagdari, tenure, which had existed from time immemorial, is supposed to be a survival of the old system of joint village communities. The tenure was abolished by Akbar but it was subsequently revived by the Mahrattas as being helpful to their revenue-farming system, the whole village community of Bhagdars being treated as the farmer. The Bhagdari tenure was thus merely an easy mode for the collection of the State demand. It was regulated by Bombay Act V of 1862, with the following two-fold objects :

(1) to benefit the *bhagdars* by making impossible the disintegration of the agricultural lands, as well as the homesteads, *gabhans*, etc., and to prevent them from being secured to any one outside the *bhagdars* of the village ; and

(2) to secure the interests of Government by fixing joint responsibility for the payment of the Government revenue.

With the lapse of time the benefits of the system ceased to exist owing to the prestige attendant on the tenure having disappeared as a result of the change in popular conceptions, and many unrecognised portions of *bhags* having been unauthorised by being alienated to *non-bhagdars*. The case for the continuance of the tenure had, therefore, disappeared. The tenure was moreover inconsistent with the State policy of agrarian reforms. Hence it was abolished by the enactment of the Bombay Bhagdari and Narwadari tenures.

Abolition Act (*XXXII* of 1949).

This Act gives the right of occupancy (under the provisions of the Land Revenue Code) to all holders of land forming part of a *bhag* or share in the village together with their homestead building sites etc., and to the persons in lawful possession of *majmun* lands (on payment of the land revenue). Care has been taken to declare and affirm the position of the *bhagdars*. But special rules of succession, which prefer male agnates to female heirs, such as daughters and sisters, are abolished.

CHAPTER 15. — Revenue and Finance. LAND RECORDS. Land Revenue Settlements.

The original survey settlements in the pre-merger area of Broach District were introduced between 1863 and 1877. The first revision settlements, now in force, were introduced between 1903 and 1915.

Some 876 villages of the ex-Rajpipla State, all wholly surveyed and settled, have been merged in this district. The original settlements in this area were introduced between 1888 and 1925, the first revision settlements between 1911 and 1935, and second revision settlements between 1927 and 1934. The second revision Settlements are now in force, except in 370 villages (Mainly in the Dediapada taluka and the Sagbara peta) where the original settlements of 1920-25 are in force; and in 185 villages (mainly in the Nandod taluka and the Valia peta), in which the first revision settlements of 1927-1934 are in force.

In 95 villages of the Sagbara peta, the lands given out for cultivation on an extensive scale during the former State regime were not surveyed. The survey of these areas is in progress.

The current settlements have expired in all the talukas of the district since long and their revision is overdue.

This survey was carried by chain and cross-staff, the unit of area adopted being the "English acre", with its sub-division, the *guntha* (121 square yards or a square formed by 1 chain x 1 chain), 40 *gunthas* making an acre. The area of each survey number and its sub-

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All property, not in the possession of individuals or aggregate of individuals, now vests in Government (under section 37 L.R.C.).

(2) Talukdari (Wanta) tenure.

There were 29 wantas in Broach district, the holders of which were known as Thakors or Talukdars. The Muslim invaders of Gujarat deprived the original chiefs of all but one-fourth of their possessions, the portion retained with them being known as 'Wanta'. The wanta was a free-hold, and what was formerly paid as tribute as *peshkush* or political levy, was converted during the British regime into *Udhad jama* or payment of fixed amount in lump as the revenue under the Gujarat Talukdars Act (VI of 1888), or as *salami* under the Summary Settlement Act (VII of 1863). This jama or *salami* was not subject to revision at the successive revision settlements.

The Gujarat Talukdars Act recognised the proprietory character of the talukdari estates comprising the wantas, but restricted the holders' powers of alienation. Succession in case of these estates was settled by custom dating back to pre-British times. The greater part of these estates in Broach district was governed by the rule of primogeniture.

It was originally expected that the talukdars would develop their villages and maintain their dignity; and Government took definite steps in this direction by making their estates inalienable and advancing them liberal loans. But, these expectations were not realised in the case of most of the estate holders, and the talukdari villages generally presented a very gloomy picture. The holders had practically become more superfluous intermediaries between the State and the tillers of the soil. The tenure was, therefore, abolished as a part of the Government agrarian reforms, by enacting the Bombay Talukdari tenure Abolition Act, 1949, and the Bombay Personal Inams Abolition Act, which reduced the *wantas* to the category of *khalsa* lands and provided for the payment of compensation for the extinction of the rights of the *wanta* holders in public roads, lanes, paths, tanks, etc., which are now declared to be the property of Government.

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divisions, if any, is separately entered in the Land Records under indicative numbers.

Accurate village maps (generally drawn to a scale of 1"=20 chains) have been prepared for all the surveyed villages, showing the survey numbers and their boundary marks and other topographical details such as roads, *nallas*, forests etc. From these village maps, taluka and district maps have been prepared on a scale of 1"=2 miles.

Classification.

The main classes of land recognised are dry-crop, garden (*dhekudiat* and *bhatha*), and rice; and each field is classified with reference to the texture of the soil and its depth and the presence of sub-soil water or other advantages or/and deteriorating factors, if any. In the case of "dhekudiat" and rice lands, in addition to the soil and sub-soil factors, the water supply by dhekudis (water-lifts set up near rivers or streams or tanks, if any) has also been classified with reference to its source and duration and the crops grown. The classification value is expressed in terms of annas, 16 annas representing the standard. The original soil classification when confirmed or made during revision survey is treated as final; and no further general re-classification is to be made at any future revision settlements (*vide* section 106 Land Revenue Code). The holder is, however, entitled to ask for the re-classification of his land in case of physical deterioration, and for consequent reduction of assessment.

All improvements made are exempted from taxation for a period of 30 years immediately preceding the year in which settlement is introduced. Thereafter, they are liable to taxation.

Settlement and Assesment.

The function of the Settlement Officer is to divide the area under settlement into homogeneous groups and to propose standard rates for each class of land within the group for being sanctioned by Government.*These standard rates represent the assessment per acre

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**Procedure of Settlement and Assessment of Land Revenue on agricultural lands*. Prior to 1939 the settlement procedure was prescribed by administrative orders of Government. With the passing of the Land Revenue Code Amendment Act of 1939 (Bombay XX of 1939), the procedure has been brought on the statute book. The various provisions governing the settlement procedure are contained in Chapter VII-A of the Land Revenue Code and Chapter III-A of the *Land Revenue Rules*. In brief, the prescribed procedure is as under :—

"Settlement" is defined as the result of the operations conducted in a taluka or a part of taluka, in order to determine the land revenue assessment [Section 117-C(i)].

The settlement officer (appointed by Government under Section 18, Land Revenue Code) examines the past revenue history of the area, with a view to assessing the general effect of the existing incidence of assessment on the economic condition of the area, and by careful enquiry in the villages, he collects information in respect of the following 14 points, in the manner prescribed in Land Revenue rule 19-A.

(1) Physical configuration.
(2) Climate and rainfall.
(3) Markets.
(4) Communications.
(5) Standards of husbandary.
(6) Population and supply of labour.

for land (of that particular class) of 16 annas soil classification value The assessment of each individual holding is then calculated on the basis of the sanctioned standard rates with reference to the relative classification value of the particular survey number.

Record of Rights.

The Record of Rights law (contained in Chapter X of the Bombay Land Revenue Code) was enacted in 1913. The Record of Rights has been introduced in all talukas of the district except the 95 surveyed villages of Sagbara Peta (which are required to be re-surveyed for checking the accuracy of the work originally done).

According to Section 135-B(1) of the Land Revenue Code, the Record of Rights is to contain the following particulars:—

(a) the names of all holders, occupants or mortgagees of the land, or assignees of the rent or revenue thereof;

(b) the nature and extent of their respective interests, and the conditions or liabilities attached thereto, if any;

(c) the rent or revenue, if any, payable by or to any of such persons; and

(d) such other particulars as the State Government may prescribe under the Rules made in this behalf.

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(7) Agricultural resources.
(8) The variations in the areas of occupied and cultivated lands (during the last 30 years).
(9) Wages.
(10) Prices.
(11) Yield of the principal crops.
(12) The ordinary expenses of cultivating the crops, (including the wages of the cultivators for their own labour in cultivating the land).
(13) Rental values of land used for the purpose of agriculture.
(14) Sale value of such land.

While making a settlement the settlement officer divides the areas to be settled into groups, which are homogeneous in respect of the fourteen factors enumerated above [Land Revenue Code Section 117 G(1) and (2)], and then fixes a standard rate of assessment for each class of land (dry crop, rice and garden) in the group. The "standard rate" is the normal assessment per acre of land of the respective classes of 16 annas classification value [Section 117C(5) and (6)].

These (standard) rates are so fixed that the aggregate assessment on the occupied lands in any group shall not exceed 35% of the average of the rental value of such lands for a period of five years immediately preceding the year in which the settlement is directed [L. R. Code section 117G(1)].

The enhancement of assessment at a revision settlement is limited to 25% of the aggregate existing assessment in the case of a taluka or group, and 50% in the case of a village and individual holding (section 117F).

All improvements made at the cost of the holders are exampted from assessment for a period of 30 years immediately preceding the date on which the settlement expires (section 117-H).

The Settlement Officer formulates his settlement proposals on the above basis in the form of a comprehensive report, which contains

(i) the various statistics and data collected by him (in the prescribed forms);

(ii) the reasons for his proposals, and

(iii) a statement showing the effect of his proposals as compared to that of the previous settlements in force [Land Revenue Rules 19B(i)];

and submits his report to the Collector (Section 117-I).

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Record of Rights.

Under section 135-B(2), the State Government has now applied the above law to all tenancies as well.

Every acquisition of a right in land is to be reported to the village officers by the person acquiring it, unless it is acquired by registered deed (L. R. Code, Section 135-C). Failure to report such acquisition is made liable to fine by way of levy of late fees (for entering such right in eth Record of Rights).

Functions of the Department.

In 1884, when the revision survey and settlement operations in the State were completed, the old Survey Settlement Department was closed and the Land Records Department was created as an adjunct to the Revenue Department. Its functions are:—

(i) to maintain up-to-date all survey, soil classification and settlement records, by keeping very careful notes of all changes, and for this purpose to carry out necessary field operations before incorporating the changes in the survey records;

(ii) to collect and provide statistics necessary for sound administration of all matters connected with land;

The settlement report is published in the regional language, in the prescribed manner in each village, together with a notice showing the existing standard rates for each class of land and the extent of the increase or decrease proposed by the Settlement Officer. A period of three months from the date of notice is allowed for lodging objections, if any, to the settlement proposals. (Section 117-J).

Provision is also made in the law for referring the settlement proposals to the Revenue Tribunal at the instance of any aggrieved person, within two months from the date of the notice (Section 117 KK), on his depositing a sum of Rs. 100/-.

After taking into account the objections raised, the Collector forwards the Settlement Officer's report to the State Government, with his own remarks (through the Settlement Commissioner and Director of Land Records) (section 117-K).

The settlement report, together with objections raised and the recommendations of the Bombay Revenue Tribunal, is placed on the table of both chambers of the legislature; and the proposals are liable to be discussed in the Legislature (Section 117-C).

Thereafter, the State Government passes final orders on the settlement report (Section 117 L), and after notice of the Government order has been published in the prescribed manner, the settlement is deemed to have been introduced (Section 117 O).

Assessment.—In the case of an original settlement, the assessment to be imposed on each holding is determined by the application of the standard rates to the classification value of the land, through the medium of jantries (tables of calculations) prepared by the Superintendent of Survey and the Settlement Commissioner and Director of Land Records. In the case or revision settlement, the revised assessment of each holding is worked out by increasing or decreasing the old assessment in the same proportion as the increase or decrease in the new standard rates as compared to the old standard rates (L. R. Rules 19 H)

The settlement can be declared with reference to prices, in which case a surcharge can be levied or a rebate granted during the currency of the settlement, according as the prices go up or down (Section 117 M and L. R. R. 19 K). Additional water advantages created at the cost of Government can be assessed during the currency of the settlement (S. 117 Q).

A settlement ordinarily remains in force for 30 years (S. 117 E).

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Functions of the Departments.

(iii) to help to reduce, simplify and cheapen litigation in revenue and civil courts by providing reliable record of areas and titles etc;

(iv) to supervise the preparation and maintenance of the Record of Rights and arrange for the regular inspection of boundary marks;

(v) to conduct periodical revision settlement operations;

(vi) to organise and carry out village site surveys on an extensive scale and arrange for their proper maintenance;

(vii) to undertake special surveys for public bodies and/or for private individuals (such as survey of inam villages), and surveys in connection with railway, municipal and local board projects, town planning schemes, and for the Defence and other Government Departments;

(viii) to maintain up-to-date all village maps and to arrange for their re-printing when necessary, and their distribution to various Government deparments for administrative purposes, and also for sale to the public; and

(ix) to train the revenue officers in survey and settlement matters.

Organisation.

The District Inspector of Land Records at Broach is the principal officer in charge of the Land Records Department in the district. He is a gazetted officer (of a Mamlatdar's rank) appointed by the Settlement Commissioner and Director of Land Records, and directly subordinate to the Superintendent of Land Records, Surat Circle, in all technical matters. He is also subordinate to the Collector, and has to carry out his administrative orders with regard to survey and land records. The District Inspector has under him a staff consisting of clerks, surveyors, measurers etc.

Duties and functions of the District Inspector of Land Records and his staff.

The duties of the District Inspector of Land Records are:—

(a) to supervise and take a field test of the measurement, classification and *pot hissa* work, done by the District, Cadastral, Maintenance and *Pot Hissa* surveyors;

(b) to exercise check over the proper and prompt disposal of all measurement and other work done by the surveyor staff and the District Survey office establishments, by scrutinizing their diaries and monthly statements *(mahewars)* etc.;

(c) to take practical test of as many Circle Inspectors' and village officers' work as possible, with a view to seeing that they understand their duties in respect of the Record of Rights, the tenancy and crop registers, and boundary marks repairs work etc. (This test is meant to be qualitative and not merely quantitative. During his village inspections, the District Inspector also sees that the Government waste lands are not being unauthorisedly used);

(d) to see that the theodolite stones fixed during survey (on the minor triangulation method) are kept in order, and to arrange for their regular inspection and replacement where necessary;

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(e) to compile the Huzur Statistics (Agricultural Returns Nos. I, II and III) with the clerical aid placed at his disposal by the Collector;

(f) to maintain the accounts, and watch the prompt recovery of all city survey and pot hissa dues;

Duties and functions of the District Inspector of Land Records and his Staff.

(g) to inspect all city survey offices in the district once every year, and to send the inspection memoranda (in triplicate) to the Superintendent of Land Records, who forwards one copy to the Director of Land Records and one to the City Survey Officer (through the Collector) with his own remarks thereon; and

(h) to arrange (in consultation with the Collector) for the training of the Junior Indian Administrative Service Officers and District Deputy Collectors and candidates for the posts of Mamlatdars as well as the circle inspectors, clerks and talatis, in survey and settlement matters.

District and Cadastral Surveyors.

The staff of district and cadastral surveyors deals with the routine measurement and classification work, whether required to be done for Government (*e.g.* in land acquisition cases) or, on payment of prescribed fees, for private parties and in civil court partition decrees etc. Following field measurement work in the fair season the necessary changes are effected in the survey records by preparing *kamjasti patraks* during the following monsoon (or *barsat*) season.

District Survey Office and the Head Quarter Assistant.

The District Survey Office is in charge of the Head-Quarter Assistant, who acts under the orders of the District Inspector of Land Records. He and his staff are responsible for keeping the survey records in proper order and maintaining them up-to-date. The Head-Quarter Assistant also deals with all the District Inspector's correspondence work, and may dispose of the urgent work on his behalf, in urgent circumstances, during the absence of the Director of Land Records. He recovers and accounts for the fees for private measurement work, issues certified extracts from the survey records, and supplies printed maps to the applicants on payment of prescribed charges.

The District Survey Office is responsible for issuing the measurement cases to the departmental surveyors and watching their prompt and proper disposal. The surveyors' field work is subjected to scrutiny in the District Survey Office, and action taken to get necessary changes made in the survey records. The necessary *kamjasti patraks* (with their abstracts), signed by the District Inspector and countersigned by the Superintendent of Land Records, and *akarphod patraks*, signed by the Director of Land Records, are sent to the revenue authorities for making necessary corrections in the village and taluka accounts and other revenue records and maps.

Maintenance Surveyors.

Maintenance Surveyors are responsible for the maintenance of City Surveys (introduced under Section 131, L.R. Code) by keeping up-to-date the pertinent property registers, the records (including

Maintenance Surveyors.

Record of Rights) and maps also and to assist in the Revenue administration of the city surveyed areas. They work under the immediate control of the revenue officers in charge of the city survey, but their technical and administrative control vests in the District Inspector of Land Records and the Superintendent of Land Records.

City survey was introduced in Broach City in 1874-75 and the following towns of the District after 1920-21: Ankleshwar, Jambusar and Hansot. Rajpipla was surveyed in 1896 in the days when it was the capital of Rajpipla state and it is now being brought up-to-date.

The following eight village sites were all surveyed in 1916 :— (1) Shuklatirth, (2) Nikora, (3) Zanor, (4) Tankaria, (5) Tralsa, (6) Palej, (7) Maanbar and (8) Wagra V. S. S.

These village site surveys are being maintained by the revenue talatis and Circle Inspectors, and not by the Land Records personnel.

Pot Hissa Surveyors.

The staff of pot hissa Surveyors does the measurement work of the sub-divisions of Survey numbers for keeping the Record of Rights up-to-date, and during the following monsoon season they do the office work involved in working out the hissawar assessments, the preparation of duplicate sketches and *akarphod* statements etc., for the use of village officers. The cost of sub-division measurement is recovered from the landholders under Section 135 G (b), Land Revenue Code.

Circle Inspectors

The staff of circle inspectors work under the control of the Collector; and they are primarily meant to assist the revenue officers in keeping the village records up-to-date. They supervise the work of the village officers, the technical work for maintaining the Land records at the village up-to-date being supervised by the District Inspector of Land Records. Their diaries are submitted through the District Inspector, Land Records.

Post-War Reconstruction Schemes.

In addition to its normal duties the Land Records Department is also responsible for the execution of three Post-War Reconstruction Schemes (in the pre-merger areas of Broach district).

Scheme No.	*Description.*
74	Consolidation of Holdings (under the Bombay Prevention of Fragmentation and Consolidation of Holdings Act, 1947).
75	Survey of Inam Villages (for introduction of Record of Rights).
77-A	Settlement of unsettled villages.

The Officer in charge of Consolidation of Holdings is the Assistant Consolidation Officer, Broach, a gazetteed officer from the cadre of District Inspectors of Land Records appointed by the Settlement Commissioner and Director of Land Records and working under the

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Post-War Reconstruction Schemes.

immediate control of the Consolidation Officer, Surat. His staff consists of surveyors, circle inspectors etc.

Sixty-three villages of Vagra and Broach taluka have been notified for consolidation work under the Bombay Prevention of Fragmentation and Consolidation of Holdings Act, 1947. So far, nine schemes have been enforced, and the others are in progress. The whole cost at present is met by Government.

An additional Assistant Consolidation Officer (with similar ancillary staff) has been recently appointed for the district, with a view to expanding and accelerating the progress of work.

Schemes for Settlement of Indian Villages.

The special staff appointed for introduction of Survey for Record of Rights and Settlement in inam villages completed the survey and classification work in 15 inam villages in the disirct in 1952-53. The cost of survey is recovered from the holders under section 135 G (b), Land Revenue Code. The preparation of the Record of Rights is being done by the regular staff of the Talathis under the control of the Revenue Department. The introduction of settlement in these villages is also under way. The cost of settlement is ordinarily recoverable from the holders in such proportion as Government may determine (*vide* Section 216, L.R. Code). But, as many inam villages have or will become *khalsa* villages, with the recent abolition of inams, the cost in villages in which the inam tenures are abolished will have to be wholly borne by Government.

SALES TAX DEPARTMENT.

SALES TAX.
Sales Tax Act, 1946.

The Sales Tax has now become the most important source of revenue to the State, as it contributes to the exchequer more than any other head of revenue. In 1953-54 it yielded 15 crores of rupees and formed 28.45 per cent. of the tax revenue of the State.

A general sales tax was first introduced in 1946 by a Governor's Act, which in course of time underwent various amendments by the legislature. The Act that now governs the levy of sales tax is the Bombay Sales Tax Act (III of 1953) as amended thereafter from time to time.

Under section 5 of the Act dealers whose turnover either of all sales or of all purchases in a year exceeds Rs. 25,000 are liable to pay the tax. Dealers who import goods from outside the State of Bombay and dealers who manufacture or process any goods have to pay the tax if their turnover of sales or of purchases exceeds Rs. 10,000 a year, provided the value of the goods imported, or manufactured or processed, respectively, exceeds Rs. 2,500.

The system of tax as embodied in the Act is briefly as follows :—

There are three classes of tax, a "sales tax", a "general sales tax", and a "purchase tax". The "purchase tax" is, however, not a separate

tax and is only intended to seal off a loophole for evasion of either of the other two taxes. In effect, therefore, there is only a two point tax system, namely, a tax generally levied at the first stage of sale (sales tax) and a tax levied generally at the last stage of sale (general sales tax).

CHAPTER 15. — Revenue and Finance. SALES TAX. Sales Tax Act 1946.

No tax is levied on goods specified in Schedule A, containing 42 entries. These entries contain—

(i) goods required mostly by agriculturists for cultivation, e.g., agricultural implements worked or operated exclusively by human or animal agency of the following kinds :—chaff-cutters, clod crushers, harrows, iron and leather *mhots*, iron ploughs and plough points, pick-axes, *rahats*, shovels, sickles, spades and wooden seed drills (entry 1); cattle, sheep and goats (5); cattle-feeds including fodder and other concentrates but excluding cotton seed (6); fertilizers (17); and manures including oil cakes (32);

(ii) necessaries of the poorer sections of the community, e.g., betel (2); bread (3); butter-milk and curds (4); cereals and pulses in all forms (7)*; chillies, chilly powder, tamarind and turmeric, whole or powdered (9)*; eggs (15); firewood and charcoal (18); fish (19)*; flour including *atta*, maida, *suji* and bran (20)*; flowers (21); food and non-alcoholic drinks consumed at a hotel, restaurant, refreshment room, eating house or other place where such food and drinks are served (except when the cost of food and drinks consumed at one time by one person exceeds one rupee) (22); fresh fruits (23): fresh vegetables and edible tubers (24); glass bangles sold at a rate not exceeding two annas each (25); gur (26); kerosene (28); *kum-kum* (30); *mangalsutra* with black glass beads sold at a rate not exceeding Rs.5 each (31); meat (33)*; milk, whole or separated (34); salt (37); slates and slate pencils; chalk sticks and crayons; foot-rules, exercise and drawing books and lead pencils; and mathematical and drawing instrument boxes used by primary and secondary school students (38); text-books, books for supplementary reading and school atlases sanctioned by the State Government, Director of Education for the State of Bombay, the Educational Inspectors of Divisions or the Secondary School Certificate Examination Board or approved by the Bombay Municipal Schools Committee (41); and water, other than aerated and mineral waters (42);

(iii) implements or raw materials of cottage industries and products of cottage industries, e.g., *charkha* and other implements used in the production of handspun yarn or handwoven cloth as may be specified by the State Government

* Except when sold in sealed containers.

by notification in the official Gazette (8); cloth woven in handlooms sold at a rate not exceeding Rs. 2 per yard (10); clothes and other articles of Khaddar (11)§; cotton yarn and cotton thread (13); edible oils manufactured in ghanis by human or animal agency (14); handmade paper (27)§; khaddar (29)§;

(iv) sources of power, e. g., coal gas (when sold by a gas supply company to a local authority for consumption by such local authority for the purpose of street lighting) (12); electrical energy (16); motor spirit *(as defined)* (35);

(v) periodical journals published at intervals not exceeding one month (36);

(vi) stamp paper sold by vendors duly authorised under the provisions of the Indian Stamp Act, 1899 (39); and

(vii) sugar-cane (40).

Schedule B lists 79 specific entries and entry 80 "all goods other than those specified from time to time in Schedule A and in the preceding entries". The first 8 of these entries composed of certain raw materials of industry, viz., raw cotton (whether ginned or unginned) (1); cotton seeds (2); artificial silk yarn (3); hides and skins (4); oilseeds (5); raw silk and silk yarn (6); raw wool, wool tops and woollen yarn (other than knitting yarn) (7); and staple fibre and staple fibre yarn (8); and entries 9 to 18, which specify those goods out of the goods declared essential by Parliament [under the Essential Goods (Declaration and Regulation of Tax on Sale or Purchase) Act, 1952] which are not specified in Schedule A to the Act, are subject only to the general sales tax and not to the sales tax. On the other hand, entries 19 to 22, viz., betel nuts (19); text-books and periodical journals except such text-books and journals as are declared tax-free under entries 36 and 41 of schedule A, and other than account books, diaries, calendars, and books containing space exceeding eight pages for being written up (not being exercise books) (20); coal (21); and safety matches (excluding matches used as fire works) (22), are subject only to the sales tax and *not* to the general sales tax.

The rate of the general sales tax is only one-fourth per cent. in the case of bullion and specie (23); and one per cent. in the case of entries 1 and 2, i.e., raw cotton and cotton seeds, and only three pies in the rupee in the case of entries 3 to 8 and entry 24 [articles made of gold and silver (of fineness not less than 75 per cent.) not containing any precious stones, synthetic or artificial precious stones, or pearls, real, artificial or cultured]. In all other cases it is six pies in the rupee.

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§ When sold by dealers recognized for the purpose by the Collector of Sales Tax.

CHAPTER 15. Revenue and Finance. SALES TAX. Sales Tax Act, 1946.

The sales tax, however, is graded from one-fourth per cent. in the case of bullion and specie (23) and articles made of gold and silver, etc., (24) to three pies in the rupee in the case of entries 19 to 22 and entry 80. On several items, which may be said to form middle-class requirements, the rate is six pies in the rupee and on several other entries, which may be classed as "luxuries" it is twelve pies in the rupee. A sales tax of fifteen pies in the rupee is imposed on goods mentioned in entry 79 [textile fabrics of any kind including *saris, dhotis*, sheets, *chaddars*, blankets and other similar articles (except (i) cloth woven on handlooms, (ii) coarse and medium cotton cloth woven in mills or on powerlooms, and (iii) tracing cloth) sold at a rate not less than Rs. 3 per yard].

The scheme of the Act is such that the taxes leviable under it do not offend against Article 286 of the Constitution, which makes inter-State trade free, or hamper exports from the State to markets outside India. Suitable provisions have been made both in the Act and in the Rule framed under it to ensure that neither the sales tax nor the general sales tax has to be paid more than once on the same article even when it is manufactured or processed. Wholesale dealers, intermediaries between wholesalers and retailers, or commission agents will not generally pay any of these taxes and in cases where they have to pay, provision exists for arranging refund of these taxes to them. In cases where dealers carry on processing or manufacture of goods for sale, it has been provided in the Rules that the sales tax paid on the purchase of goods used as raw materials, processing materials, fuel, lubricants, containers, or packing materials shall be set off from the sales tax payable on the sale of the manufactured or processed goods.

Administrative Organization.

For the purpose of the administration of the Sale Tax Act, a Sales Tax Officer (Junior Grade) has been appointed for the Broach District. He has under him Sales Tax Inspectors. The headquarters of these Inspectors is Broach.

The Sales Tax Officer exercises the powers delegated to him under the Bombay Sales Tax Act and Rules for the general administration of the Act in his charge. He registers and licenses dealers who are liable to payment of tax on sales and is invested with the power of assessing them. He receives periodical returns from the dealers who are registered showing their gross turnover during the period and the tax payable by them, and he checks the returns, passes orders of assessment and takes steps for the recovery of the tax assessed. He has also to detect cases of evasion of tax. He is the head of his office and is primarily responsible for its general administration.

The officer next above the Sales Tax Officer, Broach, is the Assistant Collector of Sales Tax of the Northern Circle, who has his headquarters at Surat. The Sales Tax Officer seeks clarification and advice from the Assistant Collector in certain matters relating to the administration of the Act. He has also to submit to the

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SALES TAX.

Administrative Organisation.

Assistant Collector all cases which he is not competent to deal with. Appeals lie from the orders of the Sales Tax Officer to the Assistant Collector, from the Assistant Collector to the Collector of Sales Tax, and from the Collector to the Sales Tax Tribunal.

The following table gives for the years noted the amount of sales tax collected in the Broach district, the collection charges and the proportion of collection charges to the amount collected.

Year.	Amount collected.	Collection charges.	Proportion of collection charges to amount collected.
1946-47	1,91,000	23,740	12.43%
1947-48	5,92,000	29,120	4.92%
1948-49	5,07,941	35,480	6.98%
1949-50	8,24,667	31,085	3.77%
1950-51	12,43,920	22,515	1.81%
1951-52	13,71,250	24,357	1.77%
1952-53	10,63,258	25,743	2.42%
1953-54	12,47,516	32,220	2.58%

THE REGISTRATION DEPARTMENT.

REGISTRATION.

Registration of Documents.

Under the Indian Registration Act (XVI of 1908), compulsory registration is required in the case of certain documents and optional registration is provided for certain other documents. As a rule, fees are levied for such registration, but the State Government have exempted co-operative societies registered under the Bombay Co-operative Societies Act, 1925. Certain types of societies, such as the Urban Credit Societies, Central Financing Agencies and Housing Societies (formed of persons belonging to classes other than agriculturists or backward communities) enjoy restricted exemption in respect of certain documents involving a certain prescribed consideration. (For documents with higher than the prescribed consideration, fees have to be paid). All other co-operative societies enjoy unrestricted exemption.* Similarly, copies of awards under the Bombay Agricultural Debtors' Relief Act (XXVIII of 1947), are also registered free.

Registry Offices.

Marriages under the Parsi Marriages and Divorce Act (III of 1936) and the Special Marriage Act (III of 1872) are also registered.

In 1953, there were in all 7 Sub-Registries in Broach district;

* For the details, *vide* Government Notification, Revenue Department, No. 3648/45 (a), dated 26th July, 1948, amended by Government Notification, Revenue Department, of even No., dated 14th June, 1949.)

CHAPTER 15. Revenue and Finance. REGISTRATION. Registry Offices.

viz., Ankleshwar, Amod, Broach, Jambusar, Jhagadia, Nandod and Wagra.

The Mahal of Hansot is included in the registration sub-district of Ankleshwar. The Dediapada Taluka and Sagbara Mahal are included in the registration sub-district of Nandod. Valia Mahal is included in the registration sub-district of Jhagadia. The Sub-Registrar of Ankleshwar holds his office at Hansot periodically, on days notified in that behalf.

District Registrar.

The Collector of Broach is the ex-officio District Registrar. The Registration unit is separate from the Revenue section, but the District Registrar has powers of supervision over the entire district registration staff. The Sub-Registrars are appointed by the Inspector General of Registration; but the District Registrar has powers to make such appointments in temporary vacancies. The Sub-registry and District Registry *karkuns* and peons are appointed by the District Registrar.

The District Registrar is required to carry out the instructions of the Inspector General in all departmental matters; and, if he has any suggestions to make for the improvement of the registration system, he submits them to the Inspector General. The District Registrar solves the difficuties encountered by the Sub-Registrars in the course of their day to day work. He visits the Sub-Registry Offices in his district at least once in every two years, and sends his memoranda of inspection to the Inspector General. He hears appeals and applications preferred to him under section 72 and 73 of the Indian Registration Act (XVI of 1908) against refusal to register documents by the Sub-Registrars under him. He is competent to accord sanction for the levy of fine under sections 25 and 34 *(ibid)* condoning delays in the presentation of documents after a period of four months and in the appearance of executants after the statutory period, and ordering such documents to be registered. He is also competent to order refunds in the case of surcharge fees and to grant full or partial remission of safe custody fees in suitable cases. A will or codicil may be deposited with him under sealed cover; and it may be got registered at the cost of the party desiring it after the depositor's death. He is also authorised to receive declarations under the Muslim Personal Law (Shariat) Application Act (XXVI of 1937), and to register births and deaths under the Births, Deaths and Marriages Registration Act (VI of 1886).

Sub-Registrars.

The Sub-Registrars are immediately subordinate to the District Registrar. Their chief function is to register documents which fulfil the prescribed requirements and for which the required stamp duty and registration fees are paid. The Sub-Registrar keeps a record of such registered documents and sends, to officers concerned, extracts from the documents affecting immoveable property in respect of which a record of rights is maintained (for making mutations therein). On application by parties, he issues certified copies from the preserved records of registered documents.

CHAPTER 15. — Revenue and Finance. REGISTRATION. Sub-Registrar.

Every Sub-Registrar is an ex-officio Registrar of Parsi Marriages under the Parsi Marriages and Divorce Act (III of 1936). The Sub-Registrar working as the Headquarter Sub-Registrar at Broach is vested with powers of solemnising marriages under the Special Marriages Act (III of 1872). He is also vested with powers under the Muslim Personal Law (Shariat) Application Act. He is further the *ex-officio* Assistant Registrar of Companies and Registrar of Births and Deaths under Act VI of 1886. The principle of the department is to utilize, as fai as possible, the spare time of the Sub-Registrars in the slack seasons, and to entrust them with some responsible work of other departments.

Inspection.

The work of the Sub-Registrars is inspected by the Inspector of Registration, Surat Division (comprising Panch Mahals, Broach, Baroda, Surat, Dangs, Bombay Suburban District and Thana), and by the District Registrar; and the inspection memoranda drawn up by these officers are scrutinised by the Inspector General of Registration. The Prant Officers also inspect the Sub-Registries and submit their inspection reports to the District Registrar, who forwards them to the Inspector General of Registration, if they contain anything of importance or interest deserving the notice of the Inspector General of Registration.

The Inspector of Registration is directly subordinate to the Inspector General of Registration and does not exercise any administrative control over the registration offices. He is not a subordinate of the District Registrar. His duty is mainly confined to the inspection of the technical work of the registration offices, including the central records, and the audit of their accounts. He inspects the books in the central office of record and reports to the District Registrar about their condition, so that any records which are in danger of being destroyed may be recopied and authenticated according to law. The Inspector examines the books, indexes, accounts and other records in the offices of the Sub-Registrars once a year; and he sends one copy of his memorandum of inspection to the District Registrar and another to the Inspector General (for approval). The Inspector General passes orders in respect of such memoranda, adding his own remarks or suggestions, if any, for being complied with by the Sub-Registrar concerned.

Statistics.

The average annual income of the Broach Registration District is Rs. 74,814 and the average annual expenditure Rs. 28,674, (based on the figures for the triennium 1950 to 1952). The copying of the registered documents is done in three of the offices (viz., Broach, Ankleshwar and Vagra) by means of photography and in the remaining four offices by hand. In all, 7,238 documents were registered in the district during 1953. Of these, 7,110 documents, falling under compulsory registration, were of the aggregate value of Rs. 91,78 174; 12 documents falling under optional registration were of the aggregate value of Rs. 20,411; and 39 documents affecting moveable property were of the aggregate value of Rs. 59,631 and 77 were wills.

Revenue and Finance.

THE STAMP DEPARTMENT.

STAMPS. Organisation.

THE SUPERINTENDENT OF STAMPS, Bombay, is the authority who controls the supply and sale of State stamps in the State, while in the Broach District the Collector of Broach, as the administrative head of the district, holds general charge of the administration of the Stamp Department. There is no independent officer in the district specially in charge of stamps. The work is done by the stamp-clerk under the supervision of the Treasury Officer, Broach, who is a gazetted officer. He has charge of the Depot at Broach and is responsible for the maintenance of the stock of stamps and their sale to the public. The Treasury Officer is empowered to grant refunds of the value of unused, spoiled and obsolete stamps presented to him within the prescribed period. Branch Depots are also located at every Taluka or Mahal Headquarters and they are in charge of the Sub-Treasury Officers, i.e. the Mamlatdar or Mahalkari. The Sub-Treasury Officers are also empowered to grant refunds of stamps.

To suit public convenience, stamps are sold not only at the Depot and local Depots but also at various other centres by Vendors authorised by Government. There are (1953) 18 Vendors in the district. In addition to this, the District Nazir under the supervision of the District Judge sells impressed court-fee stamps above the value of Rs. 100 as the local Stamp Vendors' sales are registered to sales not exceeding the value of Rs. 100 in each case. Similarly non-judicial stamps above the value of Rs. 150 in each case are sold at the Treasury and the Sub-Treasury and the stamp clerk and the Sub-Treasury Officers work as ex-officio Stamp Vendors. Stamps below this in each case are sold by the authorised vendors.

The total income realised from the sale proceeds of stamps in the Broach District during 1953-54 was Rs. 1,36,466 for judicial stamps and Rs. 2,38,720 for non-Judicial stamps. The vendors are allowed a small discount and this in the year 1953-54 amounted to Rs. 862 under Judicial stamps and Rs. 5,243 under non-Judicial stamps.

THE MOTOR VEHICLES DEPARTMENT.

MOTOR VEHICLES. Motor Vehicles Act.

THE MOTOR VEHICLES DEPARTMENT deals with the administration of the Motor Vehicles Act (IV of 1939) and the Bombay Motor Vehicles Tax Act (XXXIV of 1935). Under the first Act all motor vehicles have to be registered; all drivers have to take out a licence, which is given only on their passing a prescribed test of competence; the hours of work of drivers of transport vehicles are restricted; and third party insurance of vehicles plying in public places has to be effected. It gives power to the State Governments to subject vehicles to strict mechanical tests and to control the number of vehicles to be licensed for public hire, specifying their routes and also the

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Revenue and Finance.

MOTOR VEHICLES. Motor Vehicle Act.

freight rates. Fees are leviable for registration and issue of licences and permits.

There is a State Transport Authority for each State, and Regional Transport Authorities have been set up for convenient regions of a State. The State Transport Authority co-ordinates the activities of the Regional Transport authorities.

Regional Transport Authority.

The Regional Transport Authority controls the motor transport in the region and deals with the issue of permits for different categories of transport vehicles according to the policy laid down by the State Transport Authority and the State Government from time to time. It also performs such duties as grant of authorisations to drive public service vehicles and conductors' licences, taking departmental action against those permit-holders who contravene any condition of the permit, etc., and prescribing policy in certain important matters relating to motor transport in the region.

The Regional Transport Authority for the South Gujarat Region with headquarters at Baroda has jurisdiction over Broach district and also over the districts of Baroda, Pachmahals, Surat and Dangs. It consists of four official and four non-official members nominated by Government under sub-section (1) of section 44 of the Motor Vehicles Act.

Regional Transport Officer.

The Regional Transport Officer functions as the Secretary and Executive Officer of the Authority. In his capacity as Regional Transport Officer he is the Licensing Authority for licensing drivers and the Registering Authority for registering vehicles. He is invested with powers to prosecute offenders in cases of offences committed under the Motor Vehicles Act.

Other Staff.

The immediate subordinate to the Regional Transport Officer is the Regional Supervisor. He assists the Regional Transport Officer in executing his duties and looks after the office administration. Whenver the Regional Transport Officer is out of the head-quarters, the Regional Supervisor deputises for him. He supervises the work of Inspectors and Assistant Inspectors.

There are also four Motor Vehicles Inspectors, and two Assistant Motor Vehicles Inspectors, working under the Regional Transport Officer. The Inspectors carry out the work of registration, inspection of motor vehicles, testing of drivers and conductors, checking of motor vehicles and detecting of offences under the Motor Vehicles Act.

The Assistant Inspectors assist the Inspectors in carrying out inspections of vehicles and also do the work of the Inspectors when the latter are on tour or on special duty.

Laison with Police Department.

This Department has liaison with the Police Department. The Police Department carries out periodical checks of motor vehicles and detects offences under the Motor Vehicles Act. It also attends

MOTOR VEHICLES.

Laison with Police Department.

to references from the Motor Vehicles Department regarding verification of character of applicants for public service vehicle authorisations, conductors' licences, taxi cab permits, etc. It also helps in the verification of non-use of vehicles and recoveries of arrears of taxes and in specifying particular places for bus stops, etc.

The District Magistrate comes into relation with this department in connection with imposition of restrictions on road transport, fixation of speed limits, and location of bus stands at various places, etc.

Motor Vehicles Tax Act.

Under the Bombay Motor Vehicles Tax Act, taxes are levied on all motor vehicles, except those designed and used solely for carrying out agricultural operations on farms and farm lands. The taxes are based on the types of vehicles (e.g. motor cycles and tricycles, goods vehicles, passenger vehicles, etc.), and their laden or unladen weight. The Act has removed all municipal and State tolls on motor vehicles. The Rules made under this Act lay down that when a vehicle is to be registered within the State, the registering authority (i.e. the Regional Transport Officer) shall verify the particulars furnished in the application for registration (e.g., the make of the vehicle, its capacity, etc.), and determine the rate of the tax for which the vehicle is liable. Every registered owner who wants to use or keep for use any vehicle in the State has to pay the tax determined, stating the limits within which he intends to use the vehicles, i.e., whether only within the limits of a particular municipality or cantonment or throughout the State. A token for the payment of the tax will be issued by the registering authority and this has to be attached to and carried on the vehicle at all times when the vehicle is in use in a public place. A fresh declaration has to be made annually, or every time the tax has to be paid (i.e., quarterly, half-yearly or annually). The registering authority before issuing the token in respect of the payment of the tax has to satisfy itself that every declaration is complete in all respects and the proper amount of tax has been paid.

CHAPTER 16—DEVELOPMENTAL DEPARTMENTS

Developmental Departments.

The Agricultural Department

Agriculture.

The officer in charge of this Department is the District Agricultural Officer, who belongs to the Bombay Agricultural Service, Class II. He is directly responsible to the Regional Deputy Director of Agriculture, Baroda Division, whose head-quarters are at Baroda. The Regional Deputy Director of Agriculture is further responsible to the Director of Agriculture who is assisted by (1) the Joint Director of Agriculture, (2) a Deputy Director of Agriculture (Head-quarters), (3) the Deputy Director of Agriculture (Extension), (4) the Deputy Director of Agriculture (Intensive Cultivation), (5) the Accounts Officers—two, and (6) the Establishment Officer. Under the District Agricultural Officer there are three Agricultural Officers, who are members of the subordinate service, each in charge of one of the following sub-divisions, viz., (1) Broach, (2) Rajpipla and (3) Jambusar. Besides there is an Assistant District Agricultural Officer attached to the office of the District Agricultural Officer to help the latter in routine and technical work. The Agricultural Officers in charge of the sub-divisions perform the same duties in their jurisdictions as enumerated below in the case of the District Agricultural Officer and also supervise and guide the Agricultural Assistants in their work. There are 32 Agricultural Assistants at present working in Broach district who are looking to agricultural extension work. Generally the allotment of Agricultural Assistants per taluka is as follows : four for a large size taluka; three for a middle size taluka and two for a small size taluka.

The District Agricultural Officer is responsible for the following work:—

(a) organising the work of Agricultural Demonstration Centres and holding field demonstrations;

(b) organisation of Crop Protection Service;

(c) supervision of crop-cutting experiments and conducting district trials of improved seeds and fertilizers;

(d) inspection of offices and depots in the district and guiding the staff;

(e) submission of periodical reports such as season and crop reports, forecast and weather reports etc;

(f) working "Grow More Food" schemes; and

CHAPTER 16.

Developmental Departments.

AGRICULTURE.

(g) carrying out rural development activities including improved seed, manures, animal husbandry, sheep, poultry and advising cultivators in improved agriculture and the like.

Demonstration and Propaganda.

Agricultural Demonstration and Propaganda:—Agricultural demonstration centres have been opened on cultivators' farms, under the supervision of Agricultural Assistants. These centres are located at (1) Bhankhetar (Jambusar), (2) Devol (Broach), (3) Jaghadia (Jaghadia), (4) Jantran (Jambusar), (5) Mangleshwar (Broach), (6) Nahier (Amod Mahal), (7) Pakhajan (Vagra), (8) Sajod (Ankleshwar), (9) Sunev-Khurad (Hansot mahal) and (10) Valia (Valia).

The owner cultivators adopt the agricultural improvements advocated by the department. Field demonstrations of standing crops and other improved practices are held during every season. Cultivators are invited to attend these demonstrations.

Propaganda is entrusted to the Agricultural Assistants. The taluka is divided into five circles, each in charge of an Assistant. Each circle has a depot wherein improved seeds, manures, etc. are stocked for sale. There are co-operative institutions collaborating with the Department in the work of distribution of manures, seeds, and insecticides.

Experiments and Research.

Agricultural Experiments and Research:—There are three stations at which research is carried on.

One is at Broach for cotton breeding. This scheme is financed partly by the Indian Central Cotton Committee. It is staffed by an Agricultural Officer (Bombay Agricultural Service Class II), two Agricultural Officers of upper division, and one Agricultural Assistant. Botanical research is carried on for breeding improved types of cotton. Nucleus seed multiplication of improved types of cotton is also done.

The Agricultural Research Station at Bhuwa is manned by an agricultural officer in the subordinate service and one agricultural assistant. Botanical research is carried on here on jowar, wheat, gram, *lang* and sesamum for breeding improved types.

A scheme for breeding wilt-resistant types of cotton for the Surat area is in operation at Shera (near Ankleshwar) in Hansot peta. This is also partly financed by the Indian Central Cotton Committee. It is staffed by an Agricultural Officer belonging to the upper subordinate service and one Agricultural Assistant.

In addition to the Deputy Directors, there are also various specialist officers under the Director of Agriculture, who have their head-quarters at Poona. These specialist officers have jurisdiction throughout the State and have their own subordinates working in sub-divisions and districts. They are in charge of Mechanical Cultivation, Lift Irrigation, Boring, Horticulture, Soil Conservation, etc.

CHAPTER 16. — Developmental Departments. AGRICULTURE. Experiments and Research.

Other officers working under the Director of Agriculture are the Statistician, Plant Pathologist, Agricultural Entomologist, Professor of Agronomy, Economic Botanist, Professor of Agricultural Economics, Cotton Botanist and Cotton Development Officer. These specialist officers carry on their work in the district with the help of the District Agricultural Officer. Under the supervision of the Cotton Botanist to Government (Surat) botanical research is carried on at the Cotton Breeding Station at Broach and the research station at Shera where wilt-resistant types of cotton for the Surat area are bred.

Mechanical Cultivation.

Mechanical Cultivation:—This work in the district is carried out by a Foreman Supervisor, who is directly under the Assistant Mechanical Cultivation Engineer, Northern Division. The ploughing programme for the tractors is drawn up in consultation with the District Development Board, on the basis of the information supplied by the Mamlatdars of the talukas.

Irrigation and Boring.

Lift Irrigation Schemes:—(i) Government lift irrigation Schemes: There are three Government lift irrigation projects at Nikora, Angareshwar and Janor on the river Narmada in Broach district. The irrigable command of these schemes is 8,060 acres and they have been constructed at a capital cost of more than 12 lakhs. These schemes are worked and managed by the Assistant Agriculutral Engineer (Bombay Agricultural Service, Class II) stationed at Broach. He also looks after the other lift irrigation schemes in the districts of Ahmedabad, Kaira and Surat.

These schemes involve heavy recurring expenditure on working of the machinery, and hence are running under financial loss. Government have, therefore, decided to close down these schemes unless these are taken over by the cultivators by forming co-operative lift irrigation schemes.

(ii) Co-operative lift irrigation schemes : The work of issuing feasibility certificates, preparing of plans and estimates for mechanical parts and giving technical advice for creation of machinery etc. to co-operative irrigation schemes in Broach and other districts in Gujarat is done by the Assistant Agricultural Engineer, Broach. He is assisted by the Mechanical Supervisor at Baroda for the work in Broach district.

(iii) Small lift irrigation schemes undertaken by private individuals:—The necessary technical advice and service for the work of erection and maintenance of lift irrigation machinery by private individuals in Broach and other districts of Ahmedabad, Amreli, Banaskantha, Sabarkantha, Mehsana, Kaira, Panchmahals, Baroda, Surat and Dangs is given by the Mechanical Assistant, Broach, who is working directly under the control of the Assistant Agricultural Engineer, Broach.

(iv) Boring work:—The working of boring machines in the Broach district departmentally has been stopped and this work is now undertaken by the District Local Board, Broach.

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AGRICULTURE.

A special scheme for popularising strainer tube wells for individual cultivation has been sanctioned by Government for the Broach and other districts where tube wells are possible. This work is to be undertaken by the Agricultural Engineer to Government, Bombay State, Poona, whenever there is demand for such work.

Lift Irrigation and Boring.

(v) Oil Engine Training Class:—One Oil Engine Training class was conducted for sometime in the fifties at Baroda for imparting practical training to cultivators' sons or representatives from Gujarat, who had installed or wished to install oil engines etc. for agricultural purposes. On closure of this class, the cultivators' sons or representatives from the Broach district had to join the Oil Engine Training class at Poona or at a place in Gujarat where an Oil Engine Training Class was started by Government.

Soil Conservations

Soil Conservation:—The problem of soil conservation is of very great importance in Broach, as the rivers of Broach carry away a lot of soil to the sea. But conservation activities have not yet been extended to the district. The subject is under the jurisdiction of the Divisional Soil Officer, Northern Division, Baroda.

There is a Land Improvement Board in the district constituted under the Bombay Land Improvement Act (Act XXVIII of 1954) which is composed of (1) the Collector, (2) the Divisional Soil Conservation Officer, (3) the district Agricultural Officer, Broach, and (4) the Secretary, District Development Board. The Board has power to direct the preparation of land improvement schemes for any area within its jurisdiction. The preparation of such schemes is usually entrusted to the Soil Conservation staff. The final plans have to be approved by the District Development Board or the State Government as the case may be. No work of afforestation on grassland improvement has so far been carried out in the Broach district. In the second five Year Plan, new bunding work covering an area of 16,200 acres is included.

Soil Physicist.

Soil Physicist to Government:—There are no regular current activities of this section in the Broach district at present by way of research or demonstration farms. However, in view of the considerable area under dry crop, particularly rabi jowar, which is amenable to methods of dry farming, the investigation on dry farming and soil conservation carried out by the Soil Physicist to Government in the dry zone of the State, cover this part of the districts.

Animal Husbandry.

Animal Husbandry Section:—The Livestock Expert to Government, with head-quarters at Poona, administers the Animal Husbandry Section under the Director of Agriculture. His duties are—

(1) organisation, supervision and co-ordination of all livestock improvement in connection with cattle, sheep and poultry;

(2) supervision and direction of scientific research work in connection with animal husbandry and livestock improvement work;

CHAPTER 16. Developmental Departments. AGRICULTURE. Animal Husbandry.

(3) advice to Government and the public in all matters relating to livestock, animal husbandry and allied subjects; and,

(4) organisation and execution of district propaganda work, cattle shows and rallies, etc. connected with animal husbandry development and extension.

Shuklathirth, Jhagadia, Ankleshwar and Shera are the four cattle breeding centres. Breeding of cattle is encouraged in various ways. Cows and premium bulls are given to cultivators with fifty per cent. Government subsidy for purchasing cows and bulls. Premium bulls are given to them at Government cost. Government subsidy is given for construction of silage pits.

Poultry Development Section.—Work in connection with poultry development in the district consists of location of pure breed birds and hatching eggs of improved breeds with the farmers. During the year 1953-54, 21 pure breed birds and 18 eggs were distributed amongst farmers. The section also encourages deserving poultry-keepers by granting them poultry premia in the form of birds, housing equipment, etc.

In order to meet the crying need of small cultivators for short-term loans for taking up dairying as a side business, Government have sanctioned a scheme to help small scale dairy farmers in Bombay State. Under the scheme four dairy farmers from Broach district were advanced a loan of Rs. 1,000 in each case during the year 1949-50. With this financial assistance from Government, these dairy farmers were able to improve the condition of dairy business by introducing, in their small units, animals of better quality and adopting improved methods of housing and managing the animals. Thus these modern dairy units have served as a means of demonstration for other dairy farmers in the district. All these dairy units are working under the supervision and guidance of the Dairy Development Officer. Many querries on dairy matters from individual cultivators and institutions in the district have been attended to either in person or by correspondence.

CHAPTER 16.

Developmental Departments.
AGRICULTURE.
District Agricultural Officers.

STATEMENT SHOWING THE ORGANISATION OF THE AGRICULTURAL DEPARTMENT IN BROACH DISTRICT.
[District Agricultural Officer (G. A. S. Class II)].
OFFICE OF THE DISTRICT AGRICULTURAL OFFICER, BROACH.

	Working directly under
1. Agricultural Officer i/c Revenue Sub-divisions & Agricultural Assistants (General)	District Agricultural Officers, Broach.
2. Agricultural Officer i/c Agricultural Research Station, Bhuwa and Agricultural Assistants.	Cotton Botanist to Government, Bombay State. Surat
3. Cotton Breeder, Middle Gujarat, Broach (B. A. S. Class II). Agricultural Officers and Agricultural Assistants.	Cotton Botanists to Government, Bombay State, Surat.
4. Agricultural Assistant (Cotton)	Cotton Officer, Middle Gujarat, Baroda.
5. Assistant Agricultural Engineer i/c Lift Irrigation Scheme, Broach with Mechanical Supervisors, Mechanical Assistants. Junior Mechanics. Overseers etc	Agricultural Engineer to Government Bombay State, Poona.
6. Agricultural Officer i/c Wilt Breeding Station, Hansot.	Cotton Botanist to Government, Bombay State, Surat.
7. Foreman Supervisors, Tractor Unit No. 2, Ankleshwar.	Assistant Mechanical Cultivation Engineer, Northern Division, Baroda.
8. Agricultural Officer i/c Community Development Blocks, Valia, with Gram Sevaks.	Plant *cum* Project, Officer, Rajpipla.
9. Cotton Assistant, Ankleshwar, with Agricultural Assistants	Cotton Superintendent, Surat.

The District staff working under the District Agricultural Officer, Broach, also carried out any special work directed by the following officers:—

(1) Statistician Department of Agriculture, Bombay State, Poona, (2) Plant Pathologist to Government, Bombay State, Poona, (3) Professor of Agronomy, College of Agriculture, Poona, (4) Professor of Physics and Methematics. College of Agriculture, Poona, (5) Agricultural Entomologist to Government, Poona, (6) Horticulturist to Government, Poona, (7) Cotton Botanist to Government, Surat, (8) Cotton Development Officer, Surat, (9) Mechanical Cultivation Engineer, Poona, (10) Soil Conservation Officer, Bombay State. Poona, (11) Poultry Development Officer, Poona, (12) Deputy Director of Agriculture, Baroda Division, Baroda, (13) Deputy Director of Agriculture (Cotton Research), Bombay State, Poona.

CHAPTER 16.

Developmental Departments.
CIVIL VETERINARY DEPARTMENT.
Function.

CIVIL VETERINARY DEPARTMENT.

THE MAIN FUNCTIONS OF THE CIVIL VETERINARY DEPARTMENT are treatment of sick animals, control of cattle epidemics and castrations. The Department also conducts the work of control and destruction of ticks. It also advises people in the hygenic methods of animal management and participates in various cattle fairs and shows held at various place in the State by opening veterinary stalls etc., for propaganda.

Organisation.

The veterinary activities in the Broach district are controlled by the Divisional Veterinary Officer, Surat Division, Surat, who is in charge of five districts, viz., Ahmedabad, Broach, Kaira, Surat and Dangs. He is an officer of Class II rank in the Bombay Veterinary Service and is directly responsible and subordinate to the Director of Veterinary Services, Bombay State, Poona.

Veterinary Hospitals and Dispensaries.

In the Broach District there are five veterinary dispensaries, located at the following places, viz., Ankleshwar, Broach, Jambusar, Rajpipla and Vagra. Of these the Rajpipla dispensary is maintained by Government and the other four are maintained by the District Local Board, Broach, with assistance from Government in the shape of free services of veterinary officers and an annual grant-in-aid up to a maximum of Rs. 450 per dispensary.

The officers in charge of the veterinary dispensaries are Veterinary Officers (Bombay Veterinary Service, Class III). There is also a mobile staff of stockmen attached to the dispensaries for carrying out vaccinations, castrations and treatment work in rural areas. There are two or three fixed centres in the jurisdiction of each veterinary dispensary, which are periodically visited by the veterinary officers or stockmen for treating local animals, castration, etc.

Statistics of Diseases; Inoculations and Vaccinations.

In the year 1953-54, 7,378 animals were treated as out-patients and 257 animals as in-patients in the five dispensaries of the district. In addition 170 animals were castrated. The veterinary staff also treated 466 animals for contagious diseases and 957 animals for non-contagious diseases and performed 61 castrations in the villages while on tour. The following are the statistics of outbreaks of main contagious cattle diseases and the inoculations and vaccinations carried out during the year 1953-54.

Name of disease.	No of outbreaks reported.	No. of deaths reported.	No of inoculations and vaccinations.
Rinderpest	32	191	10,900
Haemorrhagic	74	433	16,786

Inspection of animals tendered for slaughter is carried out at the slaughter house with a view to preserving animals useful for agricultural milch, breeding, etc., purposes. During the year 1953-54,

a total number of 2,009 animals were inspected by the local veterinary officer, out of which 100 animals were rejected being useful for agricultural, breeding and milch purposes.

CHAPTER 18. — Developmental Departments. CIVIL VETERINARY DEPARTMENT. Eradication of Ticks.

There are no cattle dipping tanks in the Broach district. However, animals are treated with various D.D.T. preparations for eradication of ticks. In all 2,104 animals from this district were treated during the year 1953-54.

FOREST DEPARTMENT.

FORESTS. Organisation

The forests in the district are managed by the Divisional Forest Officer, Rajpipla, who belongs to the Bombay Forest Service, Class I. This division is further divided in small executive parts called Ranges and each Range is managed by an officer of Class III, who is usually trained in any of of the Forest Colleges at Dehra Dun, Coimbatore, Poona or Dharwar. Each Range is further divided into Rounds and each Round is managed by a Round Officer (or Forester) who is generally trained at one of the Forest Classes of the State. Finally each Round is sub-divided into Beats and each Beat is managed by a Beat Guard (or Forest Guard).

The Rajpipla Division, which includes the forests of Broach district falls in the Northern Circle of the Bombay State and is held by the Divisional Forest Officer, with headquarters at Rajpipla. There are seven Range Forest Officers in the Division each in charge of one Range, with headquarters as shown below:

Name of the Range.	*Headquarters.*
1. Rajpipla	Rajpipla
2. Gora	Gora
3. Netrang	Netrang
4. Dediapada	Dediapada
5. Sagbara	Sagbara
6. Vankal	Vankal
7. Gardeshwar (Sub-Range)	Gardeshwar

Under these Range Forest Officers there are 25 Round Officers and 68 Beat Guards.

The Divisional Forest Officer, Rajpipla, is directly responsible for the protection, exploitation and regeneration of the forests according to the sanctioned programme. The programme is usually as per sanctioned Working Plans but these forests were not till 1954 brought under a sanctioned Working Plan.

The Divisional Forest Officer further conducts sales, enters into contract, realises the revenue and controls the expenditure. He has

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Organisation.

powers to deal with forest offence cases and has powers to compound the same if compoundable. Since the forests are unclassed the forest offences have to be dealt with under the Land Revenue Code. He is responsible for forest administration and management in all matters relating to technical forest operations. Wherever forestry practice affects public interest he has to assist the Collector.

The Range Forest Officer looks after his Range and is rightly regarded as the backbone of the Forest Department. He is responsible for carrying out all the orders of the Divisional Forest Officer, with the help of the Round Officers and Beat Guards under him. He is to look after and is responsible for all the works in his charge, such as general protection, markings, reservation of trees, transport of timber, fuel etc., sowing and planting, tending and other silvicultural operations, construction of roads, buildings, protection from fires, investigation of forest offences, supervision on removal of forest produce, issuing transit passes and permits etc.

The Foresters' duties include protection of forests, detection and investigation of offences, issue of transit passes, collection of revenue from permits and compensation in offences, inspection and protection of forests. and guidance and supervision of forest guards.

The functions of the forest guard are mainly to patrol and protect forests in his beat, to look after the maintenance of the boundary marks or pillars, to do sowings, plantings and climber cutting and other silvicultural works in his beat, and detecting forest offences.

Classification of Forests.

Before the merger of the Rajpipla State with the Bombay State the forests were not classified as Reserved Forests or Protected Forests as per the Indian Forests Act, but the lands bearing forest growth were termed as forests by the then State authorities. The classification of these forests into reserved Forests and Protected Forests is, therefore, rendered impossible at the present moment (August 1954) and hence these areas have been rightly termed as "unclassed". Measures are, however, being taken to declare these areas as Reserved Forests or Protected Forests as per the Indian Forest Act.

The total land area of the district is 2,737 sq. miles, of which 626 sq. miles is under forest. Thus it will be seen that 23% of the area is under forest. All these forests are in charge of the Forest Department and there is no forest area in charge of the Revenue Department in this district.

Functions of the Forest Department.

The main functions of the Forest Department may be classed as under: (1) regeneration and maintenance; (2) exploitation, under systematic management, on sustained yield basis.

As an area is cut and tree grouth removed, it is regenerated with fresh crop. This is the principal duty of the forest officer. Great care and precaution is required against damages by men, animals and plants, and against adverse climatic influences and other inanimate

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Functions of the Forest Department.

agencies. Damage by man is caused by (1) lighting of fires; (2) encroachments; (3) faulty exploitation methods; and (4) misuse of forest rights and privileges. Though occasionally forest fires may originate from natural causes, in the vast majority of cases they are due to human action, either within or without forests. The most frequent cause is carelessness or recklessness, and sometimes illicit shikar, but occasionally there is incendiarism. To prevent damage by fire, the whole-hearted support and co-operation of the public is required. This co-operation is secured through the authority and influence of the village headman. Precautionary measures like fire tracing and early burning are also taken by the Department in good time against accidental fires. Clearing of shrubby growth along roads and paths is also done to avert any fire spreading in the forest. Rigid patrolling and vigilant watch against unauthorised felling and removal of forest produce by the villagers are resorted to. Offenders in respect of unauthorized grazing and protection from cattle are dealt with severely under the Forest Act and other laws.

Past History of Forests.

The history of these forests is traceable as far back as 1885 when the joint administration by the British and the Rajpipla State *Government* was established and the British Government took over the administration. Prior to this date very little authentic information is coming forth, except that, in respect of these forests, restrictions on their use or abuse were practically unknown to the people of the tract. They, therefore, helped themselves freely to whatever they wanted by way of timber, firewood and other forest produce, as a result of which the forests were reduced everywhere to a most miserable and almost ruined state. The chief causes attributable to this ruin are as under .

(i) No attempt of any kind was ever made at forest conservation until the establishment of the joint administration by the British government and the Rajpipla State authorities,

(ii) No attempt of any kind was ever made to restrict or control the local public and forest contractors from cutting and removing any kind of forest growth, indiscriminately, according to their needs and by most wasteful methods,

(iii) The practice of setting fire to forests was the common habit of the Bhils, as a result of which very few square miles of forests escaped burning in any season.

(iv) the forms of shifting jungle cultivation, by cutting trees and brushwood and burning the same on the hill slopes and flat areas known locally as "*Jumta*' and '*Dajhia*' respectively were practised without restriction in the tract from time immemorial. The farmer is mainly responsible for much of the denudation of the hill slopes that is observed in the hilly tract.

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Developmental Departments.
FORESTS.
Forest Products.

Forest Products can be classified under two heads, namely major forest produce (which includes timber, firewood and charcoal) and minor forest produce.

The minor forest products of these forests are Bamboos, Gum Katira (Gum from Sterculia urens trees), Tembru (Diospyros melanoxylon) and Ashirto (Bauhinia racemosa) leaves, Mohwra (Madhuka latifolia) Karanj (Pongamia glabra) seeds, honey and wax, lac, thorns Karvi (Strobilanthus callosus), hides, bones and grasses. All the coupes that are due for felling are sold by the tender system. Penalties for breach of the contract terms as stipulated in the agreement are inflicted upon the defaulters The average revenue per acre per year from the major forest produce and minor forest produce is Rs. 200/- and Rs. 43/- respectively (the averages are worked out from the figures for the year (1948-49 to 1951-52) and the average total revenue per year for the same period is Rs. 259/- per acre.

Relations with the People.

No rights have been conceded in these forests except that of right of way from village to village, way to watering places and places of diety worship in all these forests. Such rights were granted under Huzur Order No. 46 of 21st of February 1893 to the ryots and have been continued unaltered under the provisions of the Government Resolution governing the merger. Privileges have also been granted to jungle tribes permitting removal of dead and fallen timber and firewood for domestic use and grazing their cattle in these forests.

The privileges and concessions granted to the local population are embodied in Article 10 of Huzur Circular No. 17 of 16th Sepember, 1938, and are being continued since the date of merger under the terms of the Resolution governing the merger. Some forests are encumbered with privileges and the jungle tribes are permitted to remove dead and fallen timber for domestic and agricultural purposes and to cut and remover green timber and firewood of certain species for domestic use as well as for sale. The concessions granted to the forest villagers are too numerous and liberal to admit of any systematic silvicultural management. Steps to restrict the concessions have been taken and a new set of privileges based on the existing ones are under the consideration of Government.

Forests Roads.

There are a few *kaccha* forest roads in this district and attempts are being made to metal these roads.

The Co-operative Department.

Co-operative.
Organisation.

The co-operative department in Broach district is in administrative charge of the Assistant Registrar, Co-operative Societies, Baroda, who is a gazetted officer in class II of the Bombay Co-operative Service. Over him is the Divisional Deputy Registrar, Co-operative Societies, Baroda, who has jurisdiction over the districts of Panch Mahals, Baroda, Broach and Surat. Many of the powers of the Registrar of Co-operative Societies under the Bombay Co-operative Societies Act (VII of 1925) and the Rules under it have been delegated

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to him. Under the Assistant Registrar is the District Co-operative Officer, Broach, who belongs to the Subordinate Co-operative Service. The District Co-operative Officer is responsible for organisation of societies, development of the movement, supervision over societies in rural and semi-rural areas, arrangement for crop finance, etc. He is also appointed to work as a nominee of the department on certain types of co-operative institutions. Although his jurisdiction extends over the whole district, the co-ordination of departmental activities at the district level is done by the Assistant Registrar, so that there may be no duplication of work between the Assistant Registrar and the District Co-operative Officer. Below the District Co-operative Officer there is one Assistant District Co-operative Officer, Broach. He is responsible for general administrative work in the sub-division in his charge, (Broach) in particular organisation of agricultural credit, multi-purpose societies, consumers' stores and other simple types of primary institutions. Investigation of applications and complaints relating to the affairs of societies, arrangement for prompt disposal of loan applications for crop finance from members of primary agricultural or multi-purpose societies, supervision over rural primaries and small multi-purpose societies etc. form some of his important duties.

The Assistant Registrar is also entrusted with the work relating to cottage and small-scale industries and industrial co-operatives. In carrying out these duties he is assisted by a District Officer for Industrial Co-operatives and Village Industries and also by Industrial Supervisors.

Supervision Staff.

Supervision Staff:—The supervision staff serves as the last link in the administrative machinery. Their main responsibility is confined to detailed supervision over the working of all agricultural credit and multi-purpose societies. They are expected to supervise every society in their charge at least once in three months. They are in addition required to assist the societies in the preparation of normal credit statements and assets registers and also in making arrangements for provision of crop finance. There are five supervisors and two assistant supervisors in the district. Before 1st April 1946, this staff was working under the District Board of Supervising Unions and was purely non-official in status. Since that date it has been given the status of Government servants. The appointments of supervisors and assistant supervisors are made by the Divisional Deputy Registrar from among those who have undergone training at the Regional Co-operative School and passed the test prescribed. They are under the control and direction of the District Supervision Committee which functions under the direct control of the Provincial Board of Supervision. This Committee consists of:—

(1) the Assistant Registrar, Broach;

(2) the Chairman of the financing agency (i.e. the Broach Central Co-operative Bank Ltd.) or his nominee;

CHAPTER 16. Developmental Co-operative. Supervision Staff.

(3) the Chairman of the District Co-operative Board;

(4) one or two representatives of the supervising unions in the district; and

(5) one or two representatives of the agricultural non-credit societies in the district.

The District Co-operative Officer is the Secretary of the Committee. The committee recommends disciplinary action, where necessary, against the supervisors; scrutinizes and checks their programmes and diaries; and reviews the working of supervising unions and supervisors.

Supervising Unions.

Supervising Unions:—A supervising union is formed for every taluka by societies registered in the area, except for the talukas of Nandod, Dediapada and Sagbara. The supervising union of Jhagadia comprises of two talukas, viz., Jhagadia and Valia. All agricultural credit societies, agricultural non-credit societies, and non-agricultural credit societies are eligible for membership. The main functions of the supervising unions are : (a) to advise, guide, assist, rectify and control its constituent societies by efficient and regular supervision, and (b) to provide a means of assessing the credit of each of its constituent societies and to make recommendations in this behalf to the financing agencies. The Supervisor for the area acts as the Secretary of the union.

District Co-operative Board:—Education and training in co-operation, and propaganda for the spread of the co-operative movement, are carried on by the District Co-operative Board under the guidance of the Bombay Provincial Co-operative Institute. Membership of the board is of two classes, viz., (1) ordinary, consisting of all co-operative societies in the district and (2) associate, consisting of individuals. A nominee of the financing agency (the Broach Central Co-operative Bank, Ltd.) the Assistant Registrar, Broach, and the Executive Officer of the Bombay Provincial Co-operative Institute are *ex-officio* members of the general body of the board. There is a Board of Management of the board, composed of : (1) two nominees of the Bombay Provincial Co-operative Institute; (2) one or two nominees of the financing agency (i.e. the Broach Central Co-operative Bank, Ltd.); (3) four representatives of the supervising unions; (4) one or two representatives of individual members, according as their number is 20 or more; (5) one or two representatives of individual societies, according as their number is 20 or more; and (6) the administrative officer of the central financing agency (i.e. the Broach Central Co-operative Bank, Ltd.). The Board of Management has also the right to co-opt a co-operator of outstanding merit or experience from the district. The District Co-operative Board is affiliated as a subscribing member to the Divisional Co-operative Board for Gujarat which has its headquarters at Ahmedabad, and also to the Provincial Co-operative Institute.

Audit:—Section 22 of the Bombay Co-operative Societies Act provides for statutory audit of every society once a year either by the Registrar or by some person authorised by him. The audit staff in the district works under the control of the Assistant Registrar, Baroda. Besides the special Auditor there are three categories of auditors, viz. (1) Auditors, (2) Sub-Auditors, and (3) Certified (professional) Auditors. The Special Auditor is an officer belonging to the Co-operative Service, class II. This officer is stationed at Baroda but has jurisdiction over the districts of Baroda and Broach. He audits the accounts of—

(i) central banks and banking unions,

(ii) purchase and sale unions and sale societies,

(iii) the District Industrial Association and its branches,

(iv) "C" and "D" class urban banks with working capital exceeding Rs. 50,000,

(v) housing societies indebted to Government, and

(vi) societies in liquidation belonging to the classes of societies in his charge.

He also carries out a test audit of 3% of the societies audited by certified auditors. He has under him one Auditor and one sub-Auditor. There are two auditors in the Broach district who work independently of the Special Auditor. Their head-quarters are at Broach and Ankleshwar. There are two more additional auditors who have been appointed temporarily for clearance of audit areas upto 30th June, 1954. They audit the following classes of societies :

(1) multi-purpose societies and their shops;

(2) taluka development boards;

(3) weavers' societies;

(4) industrial societies;

(5) the District Co-operative Board;

(6) supervising unions;

(7) agricultural non-credit societies like crop protection, fencing, and joint farming societies, and,

(8) other societies.

The sub-Auditors (three in number permanently) audit all agricultural credit societies (except multi-purpose societies and societies running fair price and/or distribution centres with a turnover exceeding Rs. 50,000). Every distribution centre or fair price shop run by societies is treated as a separate unit.

In pursuance of the policy of progressive decentralization of the movement, in recent years steps have been taken to appoint certified auditors to carry out the statutory work of the following types of institutions:—

(1) consumers' societies with a turnover of Rs. 50,000 and over;

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Audit.

(2) urban banks and societies classed as "A" or "B" with a working capital of Rs. 50,000 and over;

(3) housing societies having no outstandings against them on account of Government loan; and

(4) any other societies certified by the Registrar.

Other Staff.

Other staff:—The other staff in the district are, (1) Land Valuation Officers, (2) Special Recovery Officers, (3) Honorary Organisers, and (4) Arbitrators.

There is one land valuation officer in the district (in 1953-54) at Rajpipla and he is attached to the civil court. His function is to give expert opinion as regards the valuation of lands with a view to enabling the civil courts to arrive at the paying capacity of the debtors who have applied for adjustment of their debts under the Bombay Agricultural Debtors' Relief Act (XXVIII of 1947). He is at times entrusted with cases of valuation of the lands of persons who apply for loans from the primary land mortgage banks. Whenever he has no work he is given other work like audit and propaganda.

Under the Bombay Co-operative Societies Act, monies recoverable as a result of arbitration or liquidation proceedings and certain other dues of comparative institutions are recoverable through the Collectors according to the law in force for the recovery of arrears of land revenue.

The honorary organizers are non-officials who give assistance in the matter of organization of different types of societies. An honorary organiser's jurisdiction extends to one or more talukas or even the whole district. In 1953-54. there were 3 district honorary organizers and 3 taluka honorary organizers in Broach district.

Under the Bombay Co-operative Societies Act, co-operative societies or members thereof may refer their disputes to the Assistant Registrar for decision either by himself or by appointment of an Arbitrator. Every year a list of persons who may act as Arbitrator is published and the Assistant Registrar sends cases of disputes to such Arbitrators. In Broach district there were 17 Arbitrators in 1953-54.

Educational Institutions

Educational Institutions : The Bombay Provincial Co-operative Institute, which is recognised as the sole agency for imparting co-operative training to officials and non-officials throughout the State, has established a Regional Co-operative School at Surat. This school is intended to impart training to the lower staff of the Co-operative Department and co-operative institutions, and in particular to supervisors, bank inspectors, and secretaries of multi-purpose societies and taluka purchase and sale unions.

Marketing

Marketing : The Registrar of Co-operative Societies is also Director of Agricultural Marketing, and in this capacity he shares with the Collector of the district the responsibilities for the effective

enforcement of the Bombay Agricultural Produce Markets Act (XXII) of 1939. The Director performs the functions of survey; orgazination and constitution of regulated markets; assessment of adequate scale of licence fees, rates of commission, and charges of other market committees; and technical guidance as regards the manner in which the accounts of the market committees shall be maintained. The administrative control of the market committees and the enforcement of statutory provisions and the rules governing the regulation of markets are, however, vested in the Collector, who exercises these powers in consultation with the Director.

The Director is assisted by a separate marketing staff, consisting of the Chief Marketing Officer and one Assistant Marketing Officer with their head-quarters at Poona and six Assistant Marketing Officers with head-quarters at Poona, Bombay, Nasik, Dharwar, Ahmedabad and Baroda. In addition there is one Assistant Marketing Officer at Bombay who is designated as Marketing Research Officer. The Chief Marketing Officer is an officer of the Class I State service and the Assistant Marketing Officers are in class II. The latter are provided with a staff of Marketing Inspectors whose jurisdiction extends to over one or more districts. The Assistant Marketing Officer at Baroda besides being in charge of the Broach district has three other districts under him, viz., Panch Mahals, Baroda and Surat. The Marketing Inspector, Broach, is in direct charge of the district. He works under the guidance of the Assistant Marketing Officer at Baroda and the Assistant Registrar of Cooperative Societies at Broach.

The Agricultural Produce Markets Act (XXII of 1939) aims at regulating the selling and buying of agricultural produce and provides for the establishment of regulated markets for agricultural commodities. These markets are to be placed under the supervision of statutory market committees fully representative of growers, traders, local authorities and Government. The market committee is empowered to levy fees on the agricultural produce under regulation bought and sold by licensees in the market area. The committee may also levy fees from traders, commission agents, weighment, surveyors and other persons operating in the market. They also issue licences to different marketing functionaries. With the previous sanction of the Director they can prescribe rates of maximum charges for the services of the various persons operating in the market.

In Broach District there are at present (1954) four regulated markets established at Broach, Jambusar, Ankleshwar and Jhagadia.

The Broach market which has its area of operation comprising Broach, Vagra taluka and Amod peta has been regulated under the provisions of the Bombay Agricultural Produce Markets Act, 1939, for the purchase and sale of lang, cotton and peas. The Broach Market has got a main yard at Broach. The Market Committee was constituted on 20th July, 1948.

CHAPTER 16. — Developmental Departments. CO-OPERATIVE. Marketing.

The Jambusar Market has been regulated for the purchase and sale of cotton, tur, math, val, guwar, castorseeds and sesamum. Its area of operation extends over the whole of the Jambusar taluka. The Market has acquired lands at Kora and Kavi villages in Jambusar taluka for the purpose of its sub-market yards. Proposal for grant of certain lands free of revenue to the Market Committee for its main yard at Jambusar is under consideration of Government. The Market Committee was constituted on 17th February, 1951.

The Ankleshwar Market has been regulated for the purchase and sale of cotton, groundnut, val, mung, math, tur, sesamum and lang. Its area of operation comprises Ankleshwar taluka and Hansot peta. The Market Committee was constituted on 14th September, 1953. It has got a main yard at Ankleshwar.

The Jhagadia Market has been regulated for the purchase and sale of cotton, groundnut, tur, gram, sesamum, Jowar and bajari. Its area of operation extends to the Jhagadia taluka and Valia peta. The Market Committee is yet to be constituted. The main yard at Jhagadia has not yet been declared (June 1954).

DEPARTMENT OF INDUSTRIAL CO-OPERATIVES AND VILLAGE INDUSTRIES.

INDUSTRIAL CO-OPERATIVES AND VILLAGE INDUSTRIES. Organisation.

THE POST OF THE JOINT REGISTRAR FOR INDUSTRIAL CO-OPERATIVES AND VILLAGE INDUSTRIES, with headquarters at Poona, was created in July, 1946. Under the Joint Registrar, at district level are Assistant Registrars, Co-operative Societies, who look after the organisation and development of Industrial Co-operatives with the help of the District Officer for Industrial Co-operatives and Village Industries. Further at the divisional level are Deputy Registrars who look after the promotion and development of Cottage and Village Industries in the districts within their charge. Under the control of the Assistant Registrars are District Officers for Industrial Co-operatives and Village Industries, usually one in each district. Under the District Officers there are Industrial Supervisors. On the marketing side, the Joint Registrar is assisted by a Deputy Joint Registrar, who deals with all problems connected with the marketing of products of cottage industries except the handloom industry. For development of the handloom industry the Joint Registrar is assisted by another Deputy Registrar who deals with all problems connected with the handloom industry. On the technical side, there is an Engineer in charge of research, experimentation, technical advice, instruction and production. There are also experts in charge of the various industries, who are responsible for giving technical guidance to individual artisans and industrial co-operatives.

The Assistant Registrar. Co-operative Societies, Broach, has general powers of supervision over (1) demonstration parties and peripatetic schools; (2) industrial co-operative societies; and (3) survey

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Organisation.

work in connection with industrial co-operatives and village industries. He, with the help of the District Officer for Industrial Co-operatives and Village Industries, keeps general control over the Government staff in the district pertaining to the Industrial Co-operatives and Village Industries Section. He entertains and scrutinises applications for loans from individual artisans, educated unemployed, backward class persons and co-operative societies, and forwards them to the Deputy Registrar concerned or the Joint Registrar for industrial Co-operatives and Village Industries, as the case may be. He also sees that agreements in connection with the loans sanctioned are properly executed, after which the loans are disbursed by him. He endeavours to introduce improved implements and improved methods of production in village and cottage industries and communicates to the Village Industries Research Laboratory the problems requiring research in regard to such implements and methods. He has to maintain contact with associations of artisans or with individual artisans in the district who have distinguished themselves in their respective industries, make a continuous study of the needs of the different cottage and village industries, and try to revive decaying and extinct industries, particularly through utilization of locally available raw materials. It is partly his duty to prepare scheme for the development of industrial Co-operatives and village Industries.

Under the District Officer, there is one Industrial Supervisor. The District Officer attends to the organisation of industrial co-operatives and development and promotion of cottage and small-scale industries. He is expected to supervise the working of demonstration parties, production centres, training school etc. He is responsible for recommending loans and subsidies to Industrial societies and for recovery of the stipulated instalments.

District Industrial Co-operative.

A District Industrial Co-operative Association for the district was formed in January, 1949. This association has its office in Broach. It has a membership of 23 societies and 96 individuals. The main functions of these district associations are to supervise and guide the affiliated societies. The association should arrange to carry out a survey of cottage and village industries existing and capable of development in the district and for this purpose the association should take stock of raw materials available in the area, technical guidance and skilled labour that would be available for the development of industries, transport, marketing facilities and other favourable factors, conductive to the development of cottage industries. The association after collecting necessary data, should suggest concrete schemes for the development of such industries either by organizing co-operative societies or recommending production activities which could be undertaken by them.

The Broach District Industrial Co-operative Association was dealing in wholesale distribution of yarn during the control period, but it had to stop that business due to removal of control on yarn.

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The Association then, on the suggestion made by the Department, took up the work of sponsoring forest labourers' co-operative societies. During the year ending 1953-54, it sponsored two forest labourers' societies. It had also undertaken the responsibility of sponsoring three more societies during the same year. The Association extended its help to other labourers' contract societies by giving financial help and general guidance. During the year ending 1953-54, it had given financial assistance to one tanners' society also. The Association has been alloted one sales depot under different handloom development schemes.

District Industrial Co-operative Association.

The Board of Director of the Broach District Industrial Co-operative Association consists of 15 persons i.e., six representatives from affiliated societies, three nominees of the Joint Registrar, one representative of central financing agency (i.e., the Southern Gujarat Industrial Co-operative Bank Ltd.), one representative of the State Industrial Co-operative Association Ltd. and four representatives from individual members.

Technical Experts.

The technical experts employed by this department who have their headquarters outside the Broach district are available for consultation and advice to the artisans of the Broach district during their periodical tours in the district.

For imparting practical training in improved methods of production, by means of use of improved types of tools and equipments, there is one Cotton Weaving School at Avidha. In 1954, twelve students were admitted for cotton weaving training. Each of them is paid a scholarship at the rate of 0-6-0 per day of attendance. In addition to this, they also received profits which they earned from their finished goods.

There were in 1954, 24 industrial societies of the following types viz:— 5 Weavers societies; 2 Tanners societies; 1 Leather Workers Society; 5 Forest Labourers Societies; 2 Luhar Karigar Societies; 1 Womens Society; 2 Labour Contract Societies; and 6 other industries and miscellaneous.

DEPARTMENT OF INDUSTRIES.

DEPARTMENT OF INDUSTRIES.

THE WORK OF DEPARTMENT OF INDUSTRIES is mainly confined to the development and progress of small-scale and large-scale industries in the State, as its control over the development of cottage industries was transferred in December 1946 to the Joint Registrar for Industrial Co-operatives and Village Industries, Poona, and its control over technical education and the various scheme related to it was transferred in June 1948 to the Director of Technical Education, Bombay.

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Organisation.

The officer directly in charge of small-scale and large-scale industries in Broach district is the Assistant Director of Industries (Class I State Service) who has his headquarters at Baroda, and whose jurisdiction also extends to the Districts of Baroda, Kaira, Panchmahals and Surat. He works directly under the Director of Industries, Bombay State. He is also in charge of work connected with the administration of the Bombay Weights and Measures Act (XV of 1932) and the Industrial Statistics Act (XIX of 1942). Under the former Act, his functions relate to enforcement of the Weights and Measures Act, collection of revenue in the form of fees for verification and/or re-verification and stamping of weights and measures, etc., and sanctioning prosecutions for breaches of the Act in his region. Under the latter Act, he is responsible for collection of industrial statistics in the prescribed form from the registered factories covered by the Census of Manufactures in the District. He is required to render all possible assistance to the occupiers of factories with a view to obtaining statistical returns, complete in all respects, in good time. He also collects industrial and commercial information on a voluntary basis as and when required either by the State or the Union Government. He also undertakes investigations in connection with cases of trade disputes with parties in that district referred to by Indian embassies abroad or foreign embassies in India. Cases of breaches of the provisions of the Trade Marks Act (V of 1940), Indian Merchandise Marks Act (IV of 1889) or Emblems and Names (Prevention of Improper Use) Act (XII of 1950) are also investigated by him. In addition, he is empowered to sanction loans under the State-Aid to Industries Rules to the limit of Rs. 1,000 in each case, to applicants in his jurisdiction, subject to the condition that the total amount sanctioned by him does not exceed Rs. 5,000 in any one year. He also watches recovery of loans granted to parties within his jurisdiction. His miscellaneous duties extend to investigation of applications (made for industrial purposes) from parties in his area for land acquisition, erection of buildings, and for essentiality certificates in connection with the import, export and purchase of controlled materials such as iron and steel, cement, etc.

The Assistant Director of Industries is assisted in the work by an Industries Officer (Class II Service) and a small number of ministerial staff all stationed at Baroda. He is besides assisted by one Senior Industries Inspector, two Junior Industries Inspectors, and three Manual Assistants who have their headquarters at (1) Broach, (2) Jambusar, and (3) Rajpipla.

The duties assigned to the former Inspectors of Weights and Measures under the Bombay Weights and Measures Rules are now carried out by the Industries Inspectors. The main purpose of the Bombay Weights and Measures Act is to provide for the adoption and compulsory use of standard weights and measures in the State. No weight or measure or weighing or measuring instrument may be sold, delivered or used for trade, unless it has been verified or re-verified

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in the manner prescribed by Rules made under the Act and stamped by an Inspector with a stamp of varification. Fees are fixed for verification, stamping, etc. It is the duty of the Inspectors to carry out the verification and stamping and collect the fees. They are also required to carry out inspection work and attend to the prosecution sanctioned under the Bombay Weights and Measures Act 1932.

The Industries Inspectors have also to carry out duties in connection with the implementation of the Industrial Statistics Act, 1942, and the Census of Manufacturing Industries Rules, 1945. The Act and the Rules are applicable to all factories registered under Section 2(m) of the Factories Act, 1948. At present, (1954), the Census covers only those registered factories which use power and employ 20 or more workers. Occupiers of these factories are required to submit statistics returns every year in the prescribed forms. The Inspectors have to ensure that the factories concerned maintain proper accounts and registers and have to render assistance in completing the returns in good time. They have also to attend to the work connected with prosecutions under Section 8 of the Industrial Statistics Act.

THE PUBLIC WORKS DEPARTMENT.

THE PUBLIC WORKS DEPARTMENT.

The Public Works Department deals with (1) Roads and Buildings (2) Irrigation, (3) Electricity, and (4) the Public Health schemes and minor ports. While the Public Health Circle and Electricity are dealt with separately by distinct branches of the department, the branches dealing with "Roads and Buildings" and "Irrigation" are not kept so distinct.

(1) *Roads and Buildings* and (2) *Irrigation* : For administrative purposes, "Roads and Buildings" and "Irrigation" are placed in charge of the Superintending Engineer, South Gujarat Circle. Under him is the Broach Division, comprising the revenue district of Broach. The Broach Division is in charge of an Executive Engineer and is divided into four Sub-Divisions, viz. (1) Broach Sub-Division, Broach; (2) Road Project Sub-Division, Broach ; (3) Rajpipla Sub-Division, Rajpipla ; and (4) Minor Irrigation Investigation Sub-Division.

Duties of Officers : While each circle is in charge of a Superintending Engineer, the Divisions are in charge of Executive Engineers and the sub-divisions in charge of Assistant Engineers or Deputy Engineers. The Assistant Engineers belong to the Bombay Service of Engineers (B. S. E.), Class I, and Deputy Engineers to B. S. E., Class II. Each of these officers is in charge of a sub-division and are, therefore, called Sub-Divisional Officers. The Sub-Divisions are divided further into sections, each in charge of an Overseer. There are about 20 Overseers in the division.

Superintending Engineer.

Superintending Engineer : The Superintending Engineer is responsible for the administration and general professional control of

Superintending Engineer.

Public Work in charge of Officers of the Department, within his circle. It is his duty to inspect the state of the various works within his circle and to satisfy himself that the system of management prevailing is efficient and economical. He is required to ascertain the efficiency of the subordinate office and petty establishments and to see and report whether the staff employed in each division is actually necessary or adequate for the management. He also examines the condition of the surveying and mathematical instruments at the headquarters of divisions. In the case of office and petty establishments borne on divisional scales, he sees that these scales are not exceeded without proper authority. The Superintending Engineers are empowered to transfer and post Deputy Engineers and Overseers within their circles. In the interests of administration, however, Executive Engineers of Divisions are consulted before posting these officers to particular sub-divisional charges under their control. It is also the duty of Superintending Engineers to recommend removals and transfers of Executive Engineers from their own circles. The supervision and control of the assessment of revenue from irrigation works within his circles rests with the Superintending Engineer. The Superintending Engineer is authorised to correspond direct with any of the local authorities, civil or military, within his circle.

Executive Engineer.

Executive Engineer : The Executive Engineer is responsible to the Superintending Engineer of his circle for the execution and management of all works within his division. He has to see that proper measures are taken to preserve all buildings and works in his division and to prevent encroachment on Government lands in his charge. He is responsible to see that the surveying and mathematical instruments in his division are properly cared for and to report on their condition to the Superintending Engineer at the end of each working season. In addition to his other duties, he is ex-officio professional adviser of all departments of the State within the limits of his charge.

Sub-Divisional Officers.

Sub-Divisional Officers : The Sub-Divisional Officers are responsible to the Executive Engineer in charge of the division for the management and execution of works within their sub-divisions.

Overseers.

Overseers : The Overseers are in charge of sections under the Sub-Divisional Officers.

Roads.

Roads : The activities of the Public Works Department in regard to roads relate to their construction, repairs, maintenance and preparation of plans and estimates. In the Broach district, as on 31st March 1954, the Department maintained 157¾ miles of metalled roads and 81¾ miles of unmetalled roads. Within municipal limits in the district the total length of metalled roads maintained by the Public Works Department was 2¾ miles. Along Public Works Department roads, there were about 9,540 trees maintained by the Department.

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In addition to funds from the general revenues of the State allocated for expenditure on roads, there are two other funds viz., (1) the Central Road Fund and (2) the State Road Fund. The Central Road Fund is in charge of the Government of India which allocates the funds. Expenditure is incurred in the district for State roads from these funds.

Roads classified as National Highways are the responsibility of the Government of India and are constructed, improved and maintained by the State Government at the cost of the Central Government.

Irrigation Works.

Irrigation Works : The activities of the Public Works Department in regard to irrigation relate to the construction, maintenance and repairs of irrigation works financed by Government and placed in charge of the department. The Public Works Department also maintains and repairs some of the irrigation works in charge of the Revenue Department, on requisition of the revenue authorities. The works in charge of the Executive Engineer, Broach Division, in the Broach District, consist of 20 bunds with a total mileage of 40.19 and 61 drainage channels with a total mileage of 180.30. Minor Irrigation Works in charge of the Executive Engineer, Broach Division, are purely of the nature of maintenance and repairs of bunds and channels.

Electrical Circle.

Electrical Circle:—For carrying out advisory, administrative and executive duties pertaining to the generation and use of electricity, there is the Electrical Circle under the Electrical Engineer to Government. The jurisdiction of this officer extends to the whole of the State. Under him are three Electrical Divisions, each in charge of an Executive Engineer, having their Headquarters at Bombay, Poona and Baroda. The Baroda Electrical Division contains the Broach district.

The Executive Engineer has to do duties relating the electrical installations in Government buildings, such as execution of original works, carrying out special repairs, and maintenance. He is also Electrical Inspector under the Indian Electricity Act (IX of 1910) and carries out inspections of M. P. and H. T. electrical installations, power houses, mills, cinemas, etc.

There are two electric licensees in the Broach District, viz., (1) the Broach Electric Supply and Development Corporation, Limited, and (2) the Jambusar Electric Supply Company, Limited. Besides these two electricity undertakings, there is one more Electric Power House at Rajpipla which is run by the Bombay Electric Grid Department.

Public Health. Circle.

Public Health Circle:—The Public Health Circle is a specialist branch of the Public Works Department, dealing with all problems of public health, viz., piped water supply, drainage, sewerage and environmental sanitation throughout the state. The Public Health

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PUBLIC WORKS.

Public Health Circle.

Engineer to Government, with headquarters at Poona, directs the activities of this branch throughout the State. The main functions of the Circle are planing and execution of Government and municipal public health schemes and scrutiny and supervision of public health schemes prepared and executed by local bodies through their own agencies. The Circle also gives advice, so far as public health problems are concerned, to other departments of Government in connection with schemes sponsored by them. It maintains a large number of water works in the State either owned by Government or owned by local bodies but entrusted to Government for running at the cost of the local bodies. It also maintains Boring Works Sub-Divisions at Poona and Ahmedabad to take trial bores for foundations of dams and bridges and also for tube well water supply. It has under its control also a workshop at Dapury.

For convenience of administration, the State has been divided into seven Public Health Works Divisions, each in chadge of an Executive Engineer, and one of these divisions, namely, the Northern Public Health Works Division, with headquarters at Surat, has jurisdiction over the revenue districts of Surat, Kaira, Ahmedabad, Broach and Panchmahals.

As far as Broach district is concerned, the execution of public health schemes is entrusted to the Deputy Engineer in charge, Surat Sanitary Sub-Division, Surat, who is working under the control of the Executive Engineer, Northern Public Health Works Division, Surat.

Air Strip.

Air Strip:—There is an air strip at Rajpipla maintained by the Bombay Public Works Department and in charge of the Executive Engineer, Broach Division.

There is one intermediate Port (Broach) and three minor ports (Daheji, Kavi and Tankari) in Broach district. These ports are administered by State Government through the agency of the Central Excis department.

The Port of Broach is situated on the right bank of the Narmada River. The port traffic is mainly of sailing boats carring cargo from the sea to the river up to the port. As regards existing navigational facilities, there is one local oil-burning light at Luhara point. The annual average (during 1946-47 to 1950-51) of imports and exports at this port is 72,615 tons. The triangulation survey of this port has been carried out and its hydrographic survey will be completed soon. In the development programme of intermediate and minor ports, it is proposed to provide a crane jetty and transit shed at this port.

The three minor ports, viz., Kavi Dahej and Tankari will be surveyed according to the survey priority fixed by Government.

BOMBAY STATE ROAD TRANSPORT CORPORATION.

ROAD TRANSPORT CORPORATION.

The Bombay State Road Transport Corporation started operation in the Broach District from 1st April 1955 and has, sience

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then, taken over about 30 routes. The total number of State Transport buses operating in the district as on 31st May 1955 was 37.

For technical and operational conveniences Broach has been formed into an operating unit called a Depot and attached to the Baroda sub-division of the Bombay State Road Transport Corporation. The Depot has been provided with a workshop equipped so as to meet the requirements of periodical inspection and maintenance, and minor repairs to vehicles attached to the depot.

The head of the depot is the Depot Manager who is in class III supervisory grade, and is responsible to the Deputy Divisional Controller at Baroda. On the mechnical side his work is supervised by the Divisional Mechanical Engineer, Baroda, and on the traffic side by the Divisional Traffic Officer, Baroda. The total staff employed as in June 1955 was 60, excluding drivers and conductors whose number depends on the number of schedules operated. Since a Depot is essentially a technical unit, the entire staff is employed either in the workshop or on the traffic side. The administrative activities are looked after and controlled by the Deputy Divisional Controller and his office at Baroda.

FISHERIES DEPARTMENT.

FISHERIES. Introduction.

Introduction:—The fisheries of the Broach district are potentially rich and provide ample scope for further development. On the sea board it has the rich estuarian fish in the Gulf of Cambay as well as the open sea fisheries such as that of *Dara*, *Ghol* and pomfret. Apart from the sea fish, the riverine fisheries of *Palla* or *Hilsa* occurring in the Narmada and other small creeks in the district present opportunities for fresh water fisheries.

Superintendent of Fisheries.

The Fisheries Department took over the fisheries of the Broach district in October 1949 with the appointment of an officer who also supervises the work of the Surat district. He is styled as Superintendent of Fisheries, Surat and Broach Districts, and is stationed at [illegible] He works directly under the Director of Fisheries, Bombay State, Bombay, and is entrusted with the following duties:—

(a) Execution of the various development and other schemes included in the Five Year Plans concerning the district.

(b) Administration of the fisheries schools at Kolak and Umarsadi.

(c) To devise ways and means for improvement of the socio-economic conditions of fishermen.

(d) Recommendations and investigations of applications for grant of loans and subsidies and also disbursement thereof to fishermen and their societies for purchase of boats, trucks, nets and other fishing accessories, etc.

Superintendent of Fisheries.

(e) Recovery of loan amounts advanced under State Aid to Industries Rules, 1935.

(f) To attend to fishermen's complaints, such as provision of port lights, improvement to the ports etc. concerning their trade and to suggest ways and means for its improvement.

(g) Propaganda in educational field and various other schemes such as mechanisation of fishing craft, etc.

(h) Collection of fish statistics from owners of fishing vessels.

(i) To attend meetings of the Rural Development Board and their sub-committees.

Since the appointment of the Superintendent of Fisheries, Bulsar, co-operative societies have been organised in the district, the number of which today (April 1955) is five. Various sheets of waters were surveyed with a view to considering their suitability for stocking small baby fish (carp fry) specially imported from Calcutta, under the Department's scheme for stocking of inland waters with carp fry.

Certain types of nets locally known as "Zachichi Mandava" and "Zuzwari" having been found rather destructive were banned by Government by issuing a notification under the Indian Fisheries Act of 1897. The rules are known as "Bombay Net Rules. 1951."

The fishermen of the district often migrate to adjoining areas of Saurashtra for catching fish. They however lag behind the Government's programme of mechanisation. Steps are being taken by the department to induce fishermen to adopt mechanised vessels for fishing. This will enable fishermen to cruise long distances in short time and catch more fish than before.

Fishery School.

The two fishery schools in the district have proved very popular among the villagers of Kolak and Umarsadi. A plot of land has been donated by a villagers of Kolak for construction of a Fisheries School building, plans and estimates for which have been administratively approved by Government.

Second Five Year Plan.

In addition to the schemes mentioned above the following schemes are to be undertaken during the Second Five Year Plan.

(i) *Introduction of mechanised equipment ultimately leading to increased output of fish*:—Under the scheme, winches will be allotted to fishermen on the basis of one-third subsidy and two-thirds loan. The demonstration of an echo-sounder will also be undertaken by the department.

(ii) *Scheme for mechanisation of fishing craft*:—Under which marine engines will be allotted to fishermen's groups for being installed in their ships.

(iii) *Stocking of inland waters with carp fry*:

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(iv) *Establishment of Fisheries Schools*:—It is proposed to establish two more fisheries schools at important fishing centres.

COMMUNITY PROJECTS AND NATIONAL EXTENSION SERVICE.

FIRST FIVE YEAR PLAN.

In their First Five Year Plan (1951-56), the Planning Commission of the Government of India proposed organisation of "Community Development Projects" and "National Extension Service" to initiate a process of improvement of social and economic life in the villages. These are being co-operatively implemented by the Union and the State Governments. The principal aim is to mobilise local dormant man-power for a concerted and co-ordinated effort at raising the level of rural life as a whole. Both the "National Extension Service" and the "Community Development" programmes envisage development in the fields of agriculture, animal husbandry, public health, social education, co-operation, communications etc. in selected areas. In the areas of Community Development Projects Blocks, constructional programme is more intensive than in the National Extension Service areas. In the latter, the main objective is to bring about administrative re-organisation.

Each 'block' whether of the Community Development or National Extension Service category, covers a population of approximately 66,000. The budget provided for a Community Development "block" is 15 lakhs of rupees for a period of three years, while the cost of a National Extension Service block is only half of this, viz., 7½ lakhs of rupees. National Extension Service blocks are intended to spread over the whole country by the end of the Second Five Year Plan and approximately half the number of these blocks will, on the basis of their performance, be converted into Community Development Blocks. For the first three years the State Governments are to receive substantial financial help from the Central Government. After the first three years the financial liability for maintaining the development achieved in the selected area will devolve mainly upon the State Governments

Administrative Machinery.

Special administrative machinery has been set up at the headquarters of the State Governments and at lower levels to avoid delay and departmental routine. In the Bombay State the Development Commissioner, who is also the Chief Secretary to Government, has been made responsible for the control and supervision of the programme. The Development Commissioner is assisted by an Additional Development Commissioner. A committee known as the State Development Committee, consisting of the Chief Minister (as Chairman) and Ministers in charge of Finance, Public Works, Revenue and Agriculture, Forests and Co-operation, has been set up. The Chief Secretary and Secretaries, Finance, Revenue, Agriculture and Public Works Departments are members of this committee. The functions of the State committee are to lay down broad policies and provide general supervision in respect of the implementation of the programme.

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Administrative Machinery.

In the case of a Community Development Block, the Prant Officer (Assistant or Deputy Collector), in whose charge the block area falls, has been appointed ex-officio Project Officer for the development block. This arrangement not only avoids duplication of agencies but also ensures rapid development and economy in expenditure. The Project Officer, by virtue of his position as a Revenue Officer, is in a position to exert considerable healthy influence upon the villagers in their endeavour for social and economic development.

At the district and taluka levels, committees known as 'District Community Development/National Extension Service Advisory Committee' and 'Taluka Community Development/National Extension Service Advisory Committee' have been set up to look after and tender advice in connection with the working of the programme. The committees consist of both officials connected with the programme as also non-officials. To aid and advise the Prant-cum-Project Officers in the task of all-round development, subject-matter specialists like Agricultural Officers, Assistant District Co-operative Officers, Social Education Organisers, Deputy Engineers, Overseers, etc. have been appointed. Considerable delegation of powers has been made to Collectors, Prant-cum-Project Officers etc. by way of decentralisation of powers which necessarily avoids departmental routine and delay in the execution of the programme.

Gram Sevaks.

The lowest but the most important link in the chain of the administrative machinery devised for this development programme is the Gram Sevak (village level worker) who works in close contact with the villagers. A new cadre of Gram Sevaks has been formed by pooling the existing personnel of the Revenue, Co-operative and Agriculture Departments, working at the level of group of villages in the Block area. On appointment these Gram Sevaks perform revenue as well as extension duties. They are Circle Inspectors, Agricultural Assistants and Co-operative Supervisors, all in one. The talathis in charge of villages are designated as Assistant Gram Sevaks. The functions which the village level worker has to perform are of very great importance. He has to understand rural problems and the psychology of the farmer and offer solutions to his various difficulties. He has to try and find out the felt needs of the people and the solutions that he offers have to be demonstrated by working in close co-operation with the farmers. His success depends on the extent to which he gains the confidence of the farmers.

The various Administrative Departments and Heads of Departments have been directed to assign very high priority to matters relating to project works. In the district, the collector as the Chairman of the Advisory Committee, is also expected to bring about proper co-ordination in the work of the various development departments functioning in the project area.

Association of People.

The aim of the programme is community development and it can only take place when people themselves evince a keen interest

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in the programme. To this end people are sought to be associated as much as is possible with the planning of development schemes and their execution. While schemes involving large expenditure and requiring a high degree of technical skill are to be executed departmentally, other schemes are to be executed with as much co-operation as is possible from local agencies such as the District Local Boards, village panchayats, etc., or, in the last resort, by *ad hoc* committees formed of representatives of the villagers.

Public Contribution.

To ensure people's participation in the development programme it has been laid down that various schemes or works are to be taken up on the basis of public contributions. The Collectors and Project Officers approve schemes only when minimum popular contributions are forthcoming. There is no limit to the maximum popular contributions which can even be cent per cent. The scales of minimum popular contributions vary according to the nature of the schemes. Contributions may be either in cash or labour or materials. For schemes of irrigation the minimum contribution fixed is 33 per cent; for drinking water wells 25 per cent; for roads 33%; for school buildings 33%; for dispensaries or hospitals 25 per cent of capital cost, and for community recreation centres and library buildings 50 per cent of capital cost.

Community Development Block.

In Broach District, a Community Development Block was started in October 1953. It covers the whole of Valia Mahal and a part of the neighbouring Jhagadia taluka, the total population benefited by the Scheme being 67,000. The Prant Officer, Rajpipla, is the ex-officio Project Officer and he is assisted by an Honorary Joint Project Officer who was before his appointment, a prominent social worker among the adivasis. This block is located in a scheduled area which formed part of the erstwhile Rajpipla State. The introduction of the scheme has brought about a remarkable regeneration among the adivasis of this area, and although this is one of the most backward areas of the State, the popular contribution has been one of the highest.

National Extention Scheme.

The National Extension Service Scheme was first introduced in Broach District in October 1955 in Nandod taluka. In accordance with the Government's policy of making the National Extension Service Blocks co-extensive with the limits of talukas, Nandod taluka has been allotted financial allocations of 1½ Blocks on the basis of its population. The Mamlatdar is the ex-officio Block Development Officer and the Prant Officer, Rajpipla, has overall charge of directing and supervising development activities included in the programme. The Collector is expected to take personal interest in the implementation of the scheme and is ultimately responsible for its success.

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EDUCATION.
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DEPARTMENT OF EDUCATION.

Department of Education :—FOR PURPOSES OF PRIMARY and secondary education, Broach district is placed under the Educational Inspector of Broach district.

This officer belongs to Class I of the Bombay Educational Service and is directly under the control of the Director of Education. He is responsible in his district for—

(i) the supervision of primary education;

(ii) the administrative control of all Government primary and secondary schools and training institutions under the control of the Education Department, and

(iii) the control and inspection of all secondary schools including English teaching schools, vocational high schools, i.e. agricultural, commercial and technical high schools, training institutions for primary teachers and such special schools as are under the control of the Education Department. In so far as girls' schools and institutions for women are concerned, the Inspectress of Girls' Schools, Bombay (Bombay Educational Service Class I), performs the functions and duties of the District Educational Inspector in respect of (a) the inspection of girls' secondary and special schools in the district, (b) visiting girls' primary schools in the district and making suggestions for improvement.

In the carrying out of his duties of inspection and control, the Educational Inspector is assisted by an inspecting staff consisting of one Deputy Educational Inspector (Bombay Educational Service Class II) and 13 Assistant Deputy Educational Inspectors (Bombay Educational Service Class III) who are directly responsible under the Educational Inspector, for the superintendence and inspection of primary schools in the district under Section 48 of the Bombay Primary Education Act (LXI of 1947) There are also two Assistant Deputy Educational Inspectresses (Bombay Educational Service Class III) who are under the administrative control of the Educational Inspector, Broach district, and are responsible for the inspection of girls' primary schools in the district.

There are separate Inspectors having jurisdiction over the whole

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State, for physical education, visual education, drawing and craft-work and commercial schools, who carry out organisation and inspection in their respective spheres. These inspectors have naturally jurisdiction in Broach district in regard to their respective subjects, directly under the Director of Education.

The Deputy Educational Inspector, Broach, is the chief Government inspecting officer of the district so far as primary schools are concerned. Under the rules framed under the Bombay Primary Education Act, he decides the question of recognition of private primary schools. He has to keep close touch with the working of primary schools maintained or approved by school boards, social education classes and village libraries. He has to report upon the housing, equipment, staff, efficiency of instruction, etc. of the primary schools so that the Department may be in a position to determine whether the School Board is conducting its schools satisfactorily. All aided schools are inspected by him or by the inspecting staff under him. He also assists the Educational Inspector in the inspection of secondary schools and reports on any specific points about them whenever he is required to do so by the Educational Inspector.

Primary Education.

PRIMARY EDUCATION : It is declared policy of Government that universal free and compulsory primary education should be reached by a definite programme of progressive expansion, and under the Bombay Primary Education Act, the State Government has taken upon itself the duty of securing the development and expansion of primary education in the State. A minimum course of seven years' education for every child is the objective aimed at. The agencies employed for discharging this duty are the District School Boards and authorised municipalities.

"Approved schools" within the area of all non-authorized municipalities and of the District School Board are under the control of the Broach District School Board. This school board is composed of 14 members. Of these ten are elected by the District Local Board, and one by the non-authorized municipalities, and three (one official and two non-officials) are nominated by Government.

District School Board.

The School Board of the Broach municipality is composed of 12 members, of whom two are appointed by Government one being a Government official, and the rest are elected by the municipality.

School Board, Broach Municipality.

Working of Primary Education Act.

Under the Primary Education Act and the rules thereunder all District School Boards and authorized municipalities have to maintain an adequate number of primary schools in which instruction is given through the medium of the local regional languages. For children whose mother-tongue is different from the regional language of

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"Approved school" means a primary school maintained by the State Government or by the school board or by an authorized municipality or which is for the time being recognised as such by a school board or by the State Government or by an officer authorized by it in this behalf (section 2 of the Bombay Primary Education Act, LXI of 1947).

Working of Primary Education Act.

the area, School Boards have been instructed to open schools in their languages if the number of such children is not less than 40 in the first four standards and 20 in the upper standards. The teaching of the regional language of the area is also compulsory in such schools from standard III onwards. An authorized municipality has to make such provision in its budget as will enable approved schools in its area to receive grants at the rates authorised by the Government. Responsibility is laid on the District School Board to maintain a schedule of staff of Assistant Administrative Officers or Supervisors, Primary Teachers, clerks, and inferior servants and other staff, sanctioned by Government, setting forth the designations, grades, pay and nature of appointment of different members. The members of this staff are servants of the District School Board and receive their pay, allowances etc., from the Primary Education Fund maintained by the School Board. No change or alteration can be made in the schedule of staff without the previous sanction of Government. The School Board of Broach Municipality has also to prepare a similar schedule of its permanent staff. The rules made under the Act lay down model conditions of employment of teachers in private schools.

The annual budget of the District School Board has to be submitted to the Director of Education for sanction. The District School Board derives its income mainly from Government grants, which form nearly 96 per cent. of its total expenditure. It also receives from the District Local Board a contribution equal to such portion of its income from the cess on land revenue and water rates as may be fixed by Government from time to time, and from non-authorized municipalities whose schools are under its control such proportion of the rateable value of properties in the area of the respective municipalities as may be fixed by Government from time to time. The District Local Board, Broach, has under the present rules, to contribute 15 pies of the three anna cess on land revenue and water rates that it is allowed to levy. The amount to be paid by non-authorized municipalities has been fixed by Government as 5 per cent. of the rateable value of properties in their respective areas. The primary Education Fund of the Broach Municipality is composed mainly of the grant payable to it by the State Government on account of primary education, which forms nearly 60 per cent. of its expenditure on primary education.

The chief executive officer of the Broach District School Board is its Administrative Officer. This officer is appointed and paid by the State Government. The Administrative Officer of the School Board of the Broach Municipality is also appointed and paid by the State. Under these Administrative Officers are Assistant Administrative Officers or Supervisors, primary school teachers, clerks, and inferior servants and the staff under the employment of the District School Board or the municipality as the case may be. The Administrative Officer is responsible for the general administration of all primary schools maintained by the School Board. He is responsible for carrying out the suggestions made from time to time by Government officers. It is his

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duty to advise the School Board on all matters connected with primary education. He is also a member and Secretary of the Staff Selection Committee. This is a committee composed, besides himself, of the Chairman of the School Board and the Education Inspector of the District. Its duty is to select candidates for appointment as Assistant Administrative Officers or Supervisors and teachers. The Committee selects also the teachers to be deputed for training. The District School Board or the municipality or their Administrative Officers have to make appointments of the candidates in accordance with the directions given by the committee. The selection of the candidates and teachers are made in accordance with the instructions issued by the Government. The Administrative Officer has power, subject to the general instructions issued by the Director of Education, to promote, transfer and take all disciplinary action, including removal or dismissal, against the staff. His orders, however, are subject to appeal to a tribunal consisting of the Chairman of the School Board and the Educational Inspector of the District. A primary school teacher who was a guaranteed teacher on the date the Primary Education Act came into force has, however, a right of further appeal to the State Government against any order of removal or dismissal.

Statistics.

Statistics (*1952-53*) : In 1952-53, there were 658 primary schools (both lower primary, i.e., teaching standards I to IV, and upper primary, i.e., teaching standards V to VII) of wich 83 were exclusively for girls. The distribution of the schools by management was as follows :—

Government	2
District School Board	576
Municipal School Board	23
Schools aided by Government	1
Schools aided by District School Board	45
Schools aided by municipality	6
Schools un-aided	5
Total	658

There were 44,448 boys and 25,089 girls in the upper and the lower primary stages, or a total of 69,537 pupils in all primary schools. The percentage of school-going children to the population was 10 per cent.

The number of teachers in primary schools was 2,023 of whom 1,692 were men and 331 women. This works out roughly at 35 pupils per teacher. Only 903 of the men teachers and 148 of the women teachers were trained.

There were three primary training institutions. Two for men (one Government and one non-Government), and one for women, training 145 men and 74 women or a total of 219 teachers for the year.

The total direct and indirect expenditure on all primary schools was Rs. 25,49,414 and it was met from the following sources :—

Direct expenditure

		Rs.
(i)	Government	18,88,645
	District School Board Fund	2,78,839
	Municipal funds	29,156
	Fees	5,927
	Other sources	22,324
	Total	22,24,891
(ii)	Municipal schools and schools in municipal area Total...	2,31,346
	Total Direct Expenditure ...	24,56,237

Indirect expenditure

(i)	District School Board	84,859
(ii)	Municipal School Board	8,318
	Total...	93,177
	Grand Total...	25,49,414

The average cost of educating a pupil was Rs. 35-3-0 per annum; of which Government contribution came to Rs. 28-6-0.

In Broach city in 1952-53 there were 23 municipal primary schools and 8 private primary schools. The total number of pupils was 8,465 (4,813 boys and 3,652 girls). The expenditure of the municipal school board was Rs. 2,58,952, out of which Rs. 1,17,282 was contributed by the municipality. Grants to private schools amounted to Rs. 8,738.

Free compulsory primary education was introduced in the Broach district Local Board area from 1st September, 1944 for the age group of 6-11. The schools under compulsion were 231 boys' schools and 53 girls' schools. The total number of schools was 284. The number of pupils under compulsion was 27,415. Out of these 15,003 were boys and 12,412 girls. The average attendance was 71 per cent. during the year 1952-53.

Free compulsory primary education was introduced in the Broach city in the year 1927 for boys and from 1949 for girls. Compulsion was in force for the age group 6-11. The total number of children of the age group under compulsion was 7,063 and the number actually attending school was 6,222 or 70.8 per cent.

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EDUCATION.

There was dearth of buildings to house the primary schools in the year 1952-53. The School Board's own buildings were 250 and the Broach municipal buidlings were 8. Out of the latter, four were partly owned and partly rented.

Basic and Craft Schools.

BASIC AND CRAFT SCHOOLS:—A new idology has been influencing the educational activities of the State since 1937-38. It has come to be recognised that education must centre round some form of manual productive work. According to the figures for 1952 there was not a single basic school in the Broach district where education was made to centre round spining and weaving. There were 237 craft schools in the district including the municipal area. Out of 237 craft schools there were 210 spinning and weaving schools, 25 card board and carpentary schools and 2 agricultural schools.

The practising school attached to the Training College for Women, Rajpipla, has been converted into a basic school. In 1952 there were under instruction in it 188 pupils (62 boys and 126 girls).

Secondary Education.

SECONDARY EDUCATION:—Secondary education is now under the general regulations of Government, and Government control is exercised by means of conditions for the receipt of grant-in-aid. At the end of the high school course an examination is conducted by the Secondary School Certificate Examination Board and the students who pass are awarded the Secondary School Certificate. The head office of this Board is in Poona. The first examination was held in 1949. The examination provides optional courses for pupils with varied interests and aptitudes. Each university, however, lays down the subjects which a candidate must take for entrance to its courses.

Statistics.

In 1952-53 there were 22 secondary schools in the district, with a total of 6,633 pupils (5,712 boys and 921 girls). Out of these only one school was exclusively for girls and of the remaining 21, 19 were co-educational institutions. The number of girls in school exclusively meant for girls was 294, while 627 girls were in mixed schools The following statement shows the number of schools under different managements and the number of pupils in them.

	Number of schools	Number of pupils
Government	3	1,244
Local Authorities	2	911
Private aided and unaided.	17	4,478
Total	22	6,633

Thus, secondary education was imparted mainly by private agencies aided by Government grants.

There were 299 teachers in secondary schools, of whom 271 were men (129 trained and 142 untrained) and 28 women (12 trained and 16

untrained). For the secondary school certificate examination 595 candidates appeared and 226 passed.

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Government hold Drawing examinations — Elementary and Intermediate. In 1952-53, 265 appeared for the elementary, of whom 140 passed. For intermediate 113 candidates appeared and 68 passed. These figures relate to the Broach district only. The total expenditure on secondary education was Rs. 6,61,009 of which Rs. 2,68,838 came from Government funds, Rs. 5,590 from municipal funds, Rs. 3,37,092 from fees, Rs. 5,650 from endowments and Rs. 43,839 from subscriptions and other sources.

The total annual cost per pupil in secondary schools was as follows:

Direct expenditure	Total cost	Cost to Govt.	Total cost per pupil	Percentage of cost to Govt.
	Rs.	Rs.	Rs.	
Government schools	1,14,996	59,108	92.4	47.5
Municipal Board schools	90,504	33,728	99.3	37.0
Aided and un-aided schools	4,55,509	1,76,002	101.7	39.3

Special Schools.

SPECIAL SCHOOLS:—In the same year i.e. 1952-53. there were some special schools such as pathashalas, Art and Craft schools, Gymnasia, Music circles, commercial classes and educational museums but most of them were unrecognised institutions. The number of recognised special schools and classes was as under:—

Pre-primary schools	2
Art and craft classes for ladies	4
Gymnasia	3
Commercial classes	1
Educational museum	1

Physical Education.

PHYSICAL EDUCATION:—Two Assistant Deputy Educational Inspectors holding the Diploma in physical education look after and organize physical education in the district.

Physical education is a compulsory subject in secondary schools. There is a regular examination in it. Pupils attend the play-ground regularly and a programme of physical education is organized regularly in most of the secondary schools. In primary shools also provision for physical education has been made, but is not a subject for examination though an examination is regularly held. There is a prescribed syllabus for physical education for primary shools and it is en-

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forced vigorously. Every year a two months' course in physical education is organized at suitable places in the district by the Assistant Deputy Educational Inspector for Physical Education. During 1952-53 the Assistant Deputy Educational Inspector for physical Education organized one B stage class of 47 teaches at Shukalatirth. Out of 47 trainees 9 were women. These teachers organized physical education in the primary schools where they work.

A certificate course for secondary teachers is conducted by the Gujarat Vyayam Pracharak Mandal at Shri Chhotubhai Purani's Vyayam Maha-Vidyalaya, Rajpipla. Graduate teachers are trained for the diploma course at the Training Institute for Physical Education at Kandivali for one year.

In 1952-53, there were in the district 97 Scout Troops, and 7 Girl Guide companies. Out of these 67 were unregistered troops. There were 1888 Boy Scouts and 312 Girl Guides. There was only one unit of the Junior Division National Cadet Corps.

Medical Inspection.

MEDICAL INSPECTION: No medical inspection is held in primary schools, but in 1952-53 medical inspection was carried out in 74 boys' and 20 girls' schools. The number of pupils medically examined was 5,311 boys and 2,668 girls. Medical inspection is compulsory in secondary schools and the pupils are medically examined thrice during their career. The services of private medical practitioners are secured on remuneration to examine the pupils.

Visual Education.

VISUAL EDUCATION: An Assistant Deputy Educational Inspector is in charge of the work of visual instruction in the Broach district. Visual instruction is generally provided by means of (1) magic lanterns, slides and strips, (2) epidiascopes and (3) film projectors.

School Broadcasts.

SCHOOL BROADCAST: Fifty per cent. of the high schools in the district have their own sets of radio receivers. Every institution gives a chance to its pupils to attend educational broadcasts.

Social Education.

SOCIAL EDUCATION: The work of social education in the Broach district is looked after by the Gujarat Regional Social Education Committee. In 1952-53, the number of 1st test classes was 170 and of the 2nd test was 63 and the total 233. There were 3,021 adults in the 1st test class. Out of these 2,147 passed the test. There were 1,198 adults in the 2nd test class. Out of these 738 passed in second test. The total expenditure on social education was Rs. 12,278.

Village Libraries

The number of village reading rooms started under the Social Education Scheme at the end of 1952-53 was 123 and a grant amounting to Rs. 1,798 was paid to them.

TECHNICAL AND INDUSTRIAL TRAINING.

TECHNICAL AND INDUSTRIAL TRAINING.

All Technical and Industrial Institutions and courses in the State leading up to the diploma standard (non-University grade), excluding those falling under the control of a University, are controlled by the

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TECHNICAL AND INDUSTRIAL TRAINING.

Director of Technical Education, who is assisted by the Board of Technical and Industrial Training. The Director is the Chairman of the Board and the Deputy Inspector *cum* Personal Assistant to the Director is the *ex-officio* Secretary of the Board.

The only centre of technical training in the Broach district under the control of the Director of Technical Education is the Technical High School at Broach started from June 1954 with Standard VIII. At present 50 students from the local high schools are enrolled for training in technical subjects. It reached the full-fledged stage in June 1957 and the first batch of students appeared for S. S. C. Examination in March 1958 with the following technical subjects:

(1) Geometrical and Machine Drawing,
(2) Workshop Technology,
(3) Mechanical Engineering,
(4) Electrical Engineering.

MEDICAL DEPARTMENT.

MEDICAL Organisation.

The medical organisation in the district is essentially a hospital and dispensary organisation designed to render medical relief to the general population.

The Civil Hospital, Broach, is known as Sorabji Jamshedji Jijibhai Civil Hospital as Shri Sorabji had donated Rs. 25,000 to erect this hospital for the benefit of the inhabitants of Broach. There are also a number of Government-aided dispensaries which are scattered throughout the district. These aided dispensaries are owned and managed by municipalities or the District Local Board, Broach as grant--in-aid dispensaries. Under the respective Acts, the responsibility for the provision of medical relief is laid on the local bodies of the various areas. Government have decided that municipalities and local boards must devote as least 4 per cent. and 10 per cent. respectively of their annual income for medical relief. Reports are submitted each year to Government showing how far this obligation is carried out.

There are three Government Medical Officers in charge of the municipal dispensaries in the district who draw their pay directly from Government. The municipalities concerned pay a contribution to Government at the rate of Rs. 1,566 per year for a Bombay Medical Service Class III Officer and Government pays them an equivalent grant-in-aid. These dispensaries are governed according to the Rules for the Regulation of Government-aided Charitable Dispensaries, 1928, whereby, amongst other things, the medical officers are required to perform the medico-legal work. The institutions are under the managment of the local bodies concerned and the affairs of the institutions are supervised by a Dispensary Committee appointed by the District Local Board or the municipality as the case may be. In the case of hospitals and dispensaries maintained by private bodies, grants equal to one-forth of their approved expenditure, or equal to the actual deficit, whichever is less, is given.

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MEDICAL.
Organisation.

The Civil Surgeon, Broach, is the administrative head of the medical organisation in the district. He is directly subordinate to the Surgeon General with the Government of Bombay. He is in charge of the medical arrangements of the Civil Hospital at Broach and exercises complete control over the medical officers in the district. He is also the head of the Government medical officers in the district and is responsible for their efficiency and discipline and for the proper performance by them of their duties. He is, in addition, the inspecting officer of all Government and aided hospitals, dispensaries and subsidised medical practitioner centres in the district. He is also required to supervise the administration of the grant-in-aid dispensaries and hospitals in the district, and also to take an active part in the sanitary administration of Broach town as well as in public health matters affecting the district, in collaboration with the Health Officer of the Broach Municipality and the District Health Officer of the district respectively. He has under him, inclusive of the institutions in the district, 1 Bombay Medical Service Class II and 14 Bombay Medical Service Class III Officers and 12 honorary graduates. The honorary graduates receive an honorarium of Rs. 50 per month and attend the hospital for the treatment of patients for which they are appointed. They are treated as gazetted officers. Their appointments are made by Government. Their duties are in rotation, but they are called when emergencies arise.

Civil Hospital Broach.

The Civil Hospital, Broach, has separate out-door and in-door departments and an operation theatre. Men, Women and children are given medical, surgical, ear, nose, throat, eye and dental treatment. Medical cases are treated both as out-door and in-door patients . The hospital is fully equipped and has also an X-Ray Department. There are 32 beds for men and 4 beds for women. During the year 1953, the number of in-door patients treated in this hospital was 1238 with a daily average of 49.91, and the number of out-patients was 12,138, with a daily average of 232.2 The expenditure was about Rs. 84,637 for the year 1953-54.

There is an Advisory Committee attached to this hospital, composed of the Civil Surgeon as the Chairman and six other members. The functions of this committee are to help the management of the hospital by keeping the authorities informed as to the needs of the hospital as viewed by the public and advising the medical officer in charge of all measures of reform to be carried out in connection with the welfare of the patients. The departmental rules provide for the election to the committee, of representatives from the District Local Board and the Broach Municipality and also for the nomination of two ladies.

The present (1953) paid staff of the hospital consists of the Civil Surgeon (B.M.S. Class I) and two B.M.S. Class III officers. The honorary staff consists of one honorary Surgeon, one honorary Ophthalmic Surgeon and one honorary Dental Surgeon out of 12 posts sanctioned. The Civil Surgeon allots the duties of these officers but

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MEDICAL.

has no power of punishment over the honorary staff, and must report to the Surgeon-General cases requiring disciplinary action. There are also six nurses including one Sister.

Civil Hospital Rajpipla.

There is also a Civil Hospital at Rajpipla staffed by a Bombay Medical Service Class II Officer, two Bombay Medical Service Class III Officers, one nurse and one midwife. This is owned and managed by Government.

The dispensaries number 22. Of these seven are maintained by Government and they are located at—

Bhalod,	Jhagadia,
Dediapada,	Netrang, and
Dharoli,	Valia.
Gardeshwar,	

Six are municipal dispensaries, one located at Ankleshwar, two at Jambusar and three at Broach. The rest nine are maintained by the District Local Board, Broach, at—

Amod,	Jhanor,
Dahej,	Kavi,
Hansot,	Tankaria,
Ilav,	Tankaria Bunder, and
	Vagra.

Besides these, there is a private grant-in-aid dispensary at Chaswad. There are also two public hospitals at Broach town managed by unaided private institutions, and there are the Sevashram Hospital and the Mission Hospital.

Subsidised Medical Practitioners.

There are (1953) 19 subsidised medical practitioner centres in the district, located at the following places:—

Ayurvedic	*Unani.*	*Allopathic.*
1. Atali	Karmad	Gajera
2. Bhadbhut	Kosamdi	Nabipur
3. Buwa	Panoli	Shuklatirth
4. Chanchwel	Sarod	
5. Haldar		
6. Katpore		
7. Kharach		
8. Kora		
9. Nikoli		
10. Sagbara		
11. Sigam		
12. Vasna		

CHAPTER 17. — Welfare Departments. MEDICAL. Subsidised Medical Practitioners.

This scheme was introduced to encourage qualified medical practitioners to settle in rural areas. Under this scheme the practitioner receives a monthly subsidy and travelling allowance and a limited supply of medicines. An allopathic subsidised medical practitioner gets Rs. 150 per mensem as subsidy and an ayurvedic qualified hand gets Rs. 120 per mensem. A non-qualified ayurvedic subsidised medical practitioner gets Rs. 80 per mensem. Personal travelling allowance is paid at Rs. 37-8-0 p. m. to all subsidised medical practitioners. Allopathic subsidised medical practitioners are supplied with medicines worth Rs. 500 per year and Ayurvedic and Unani subsidised medical practitioners are supplied with medicines worth Rs. 300 per annum. Four-fifths of the expenditure is borne by Government and one-fifth by the District Local Board. The expenditure incurred by Government for maintaining these centres amounted to about Rs. 36,432 for the year 1953-54.

There are also four ayurvedic dispensaries at Amleshwar, Dayadra, Manda Buzarg and Sisodra, maintained by the District Local Board. Each of these dispensaries receives a grant-in-aid of Rs. 360 per annum from Government.

PUBLIC HEALTH DEPARTMENT.

PUBLIC HEALTH. Organisation.

The public health of the district is looked after by three agencies, viz. the Public Health Department of the State, local bodies, and village panchayats.

At the head of the Public Health Department is the Director of Public Health, who has his headquarters at Poona. The District Health Officer, Broach, is the head of the district in all public health matters. He is directly under the Assistant Director of Public Health, Northern Registration District, Ahmedabad, whose headquarters are at Ahmedabad and whose jurisdiction extends over the districts of Banaskantha, Sabarkantha, Mehsana, Amreli, Baroda, Ahmedabad, Kaira, Panchmahals, Broach and Surat.

The District Health Officer organises measures of public sanitation and hygiene in fairs and festivals, investigates the causes, origin and spread of diseases, both epidemic, and endemic, and adopts preventive measures to control diseases such as malaria, smallpox, cholera, plague, guineaworm, poliomyelitis, etc.; inspects and advises municipalities, village panchayats and village authorities about health, sanitation, drainage and water supply; inspects child welfare, maternity, and subsidised medical practitioners' centres; looks to industrial and school hygiene; recommends to the licensing office the issue of licenses for cinema theatres and other places of public amusement; inspects sites for school buildings, burial grounds, village extensions, etc. and gives opinion regarding their suitability from the public health point of view: and inspects factories and mines in the capacity of an ex-officio Factory or Mine Inspector. He also carries out health propaganda with the help of the subordinate staff under him.

There is also a Medical Officer in charge, Malaria Control Scheme, Broach, for carrying out antimalaria measures in the district.

The following health staff works under the District Health Officer and the Medical Officer in charge, Malaria Control Scheme, Broach (1953):—

I RURAL

(1) *Staff under District Health Officer, Broach.*

Epidemic Medical Officer	... 1
Sanitary Inspectors	... 4
Sanitary Sub-Inspectors	... 3
Vaccinators	... 12+1 Candidate vaccinator.
Sanitary Squads	... 4 Squads.
Driver	... 1
Cleaner	... 1

(2) *Staff under Medical Officer, Malaria Control Scheme, Broach.*

Assistant Medical Officer	.. 1
Malaria Supervisors	... 3
Malaria Inspectors	.. 3
Insect Collectors	... 2
Drivers	... 4
Cleaners	... 4
* Havildars	... 18
* Mazdoors	.. 90

II URBAN

Medical Officer of Health	. 1
Sanitary Inspectors	... 6
Vaccinators	... 1

Epidemics.

The main duty of the Epidemic Medical Officer is to control epidemics, and in non-epidemic times to adopt inter-epidemic measures (i.e. measures for prevention of epidemics when there is no actual outbreak), and also to render medical relief in rural areas.

An anti-epidemic truck has been supplied to the district and it is kept in charge of the Epidemic Medical Officer. This is a help towards speedy transport of staff and materials to the needy areas when the situation so demands (for immediate relief to the suffering public health) in case of outbreak of epidemic diseases. In non-epidemic times the truck is utilised for medical relief work, e.g. for distribution of medicines and treatment of patients in rural areas for minor ailments.

The headquarters of the Sanitary Inspectors for rural areas are located generally in taluka headquarters. Out of the four Sanitary

* Appointments to these posts are made for five months in a year, i. e. during the malaria season.

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Inspector in Broach district three have their headquarters at Taluka headquarters, viz. Broach, Dediapada and Amod, and one at Rajpipla. Under them are 12 vaccinators and one candidate vaccinator and four sanitary squads. Each sanitary squad is composed of a mukadam and three coolies. These Sanitary Inspectors and the staff under them look after the sanitation of such rural areas as have no panchayats constituted for them.

Vaccination.

The Sanitary Inspector is responsible for all public health matters in his charge, including control of epidemics. He conducts regular vaccination inspection. With the intention of improving the standard of vaccination and sanitation in rural areas, Government have a scheme to replace the existing vaccinators by persons holding Sanitary Inspectors' qualifications. The latter are styled Sanitary Sub-Inspectors.

The main duty of vaccinators is to carry on vaccination in their respective charges. They also assist in carrying out anti-epidemic measures and sanitary works in villages with the help of the sanitary squads under them. They construct soakage pits, manure pits, trench latrines, and drain and fill pits, and also clean the surroundings of schools, wells etc., as a demonstration for educating the rural population in this respect.

The Mukadam supervises and guides the squads in their work. In times of epidemics, the services of the squads are utilised for adopting anti-epidemic measures under the supervision and guidance of Sanitary Inspectors and the Epidemic Medical Officer.

Public vaccination and execution of measures necessary for public health are obligatory duties of the municipalities in urban areas and of the District Local Board in rural areas. The District Health Officer advises these bodies in respect of public health and sanitary problems.

There are four municipalities in the district, viz. Broach, Ankleshwar, Jambusar and Rajpipla. Broach, which is a borough municipality, has a class I Health Officer of its own. The Government gives to the municipality a subsidy towards the pay of this officer equal to half of his pay. It also gives a subsidy of one-third of the pay to all the municipalities in the case of qualified Sanitary Inspectors employed by them. The Sanitary Inspectors bring to the notice of the Health Officer (in the case of Broach) and the Chief Officer of the municipality (in the case of the other municipalities) the defects noticed by them during their rounds and the Health Officer or the Chief Officer takes action according to the powers vested in him under the bye-laws.

Vaccination work in the municipal areas of Broach district is done by Vaccinators employed by Government. In the case of the Broach municipality, which has an independent Government Vaccinator for its area, Government recovers a fixed contribution on account of pay and allowances of the vaccinator. As regards the other

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municipalities in the district where vaccination is done by taluka vaccinators, the District Local Board is required to pay a fixed contribution to Government on account of their pay and allowance in the first instance, and subsequently the District Local Board recovers a contribution fixed on the population basis from the municipalities.

There is no Sanitary Inspector or Vaccinator under the employ of the District Local Board. The vaccinators are employed by Government and a fixed contribution is recovered from the District Local Board on their behalf, the remaining expenditure being borne by Government.

In villages having panchayats, sanitation is looked after by the panchayats who appoint their own conservancy staff under the supervision of the District Local Board. The sanitary arrangements made by the village panchayats are inspected by the officers of the Public Health Department, and the defects noticed by them are brought to the notice of the President of the District Local Board. The village panchayats are empowered to levy taxes to enable them to meet the expenses towards improvements of the village, purchase of medicines, drugs and disinfectants, lighting, water supply etc. In villages which have no panchayats, the District Local Board deals directly with complaints relating to sanitary conditions, water supply etc.

Epidemic Health Figures. *Chief diseases.*

Chief Diseases:—The following table gives the number of deaths due to the chief diseases in Broach District during the quinquennium 1949-53.

Year	Cholera	Smallpox	Plague	Cerebro-spinal fever	Other fevers	Respiratory Diseases	Dysentery & Diarrhoea.
1949	—	259	—	3	10,386	1,158	155
1950	—	105	—	2	9,491	2,140	276
1951	—	56	—	—	7,204	1,891	163
1952	—	16	—	2	9,141	1,817	192
1953	337	55	—	—	8,659	1,319	140

A malaria survey of the Broach district was carried out in 1949-50 by a survey squad of the Malaria Organisation of the State. It was found that while the whole district was malarious, the talukas situated in the coastal plains and on the banks of the Narmada river were moderately endemic and those having a hilly terrain, e.g. the talukas of the former Rajpipla State, were hyperendemic. A district-wide Malaria Control Scheme has been instituted in the district since June 1953 under the State-wide Malaria Control Scheme. The entire population of the district is benefited by the malaria control measures. DDT is sprayed twice during the year. Three sub-units have been formed with headquarters at Broach, Ankleshwar and Rajpipla.

CHAPTER 17. — Welfare Departments. PUBLIC HEALTH. Fairs.

Fairs:—There are two yearly important fairs held in the district, one at Shuklatirth (Broach Taluka) in the month of Kartik (Oct.-Nov.), and the other at Sulpaneshwar (Nandod Taluka) in Chaitra (April-May). Two other fairs are held at Kadod and Bhadbhut (both in Broach taluka) once every 18 years. For the fair at Shuklatirth special arrangements are made by the Sarpanch of the local panchayat with the help of the District Local Board. Sufficient supply of pure drinking water is made available by the sanitary staff of the Public Health Department and the extra charge in this connection, including other sanitary arrangements, is met from the grant placed at the disposal of the District Health Officer by the Director of Public Health in consultation with the Collector of Broach.

Whenever there is an epidemic in the surrounding areas, in addition to other preventive measures compulsory inoculation is enforced at the fairs.

Famine Relief.

Famine Relief:—When famine and scarcity conditions are declared to exist in the district, the District Health Officer is under the general orders of the Collector in so far as medical and sanitary arrangements on scarcity and famine relief works are concerned.

Health Propaganda.

Health Propaganda:—Health propaganda is done by Sanitary Inspectors. Magic lantern lectures are delivered on subjects, such as nutritious food, prevention of blindness, school hygiene, guinea-worm, malaria, small-pox, plague, cholera, typhoid, etc. At fairs and exhibitions stalls are arranged, where posters and models on health subjects are exhibited.

School Hygiene.

School Hygiene and Medical Inspection of School Children:—The Epidemic Medical Officers and the Medical Officers of Health carry on occasional medical examination of school children during the course of their tours and distribute drugs for minor ailments and vitamin tablets to children suffering from deficiency diseases. Propaganda with the help of magic lanterns or films is carried on to educate school children in personal hygiene.

Statistics.

Vital Statistics:—The compilation of births and deaths for the Broach district is done in the office of the Assistant Director of Public Health, Northern Registration District. In the municipal areas, the municipalities concerned maintain registers of births and deaths and forward monthly extracts to the Assistant Director of Public Health. In rural areas the register is maintained by village officers and monthly extracts are sent by them to the taluka officers for transmission to the Assistant Director of Public Health.

Water Supply.

Water-Supply:—The District has sufficient water supply. A scheme for sinking wells for potable water supply in village is being executed by the Public Works Department and the District Local Board.

Maternity and Child Welfare.

Maternity and Child Welfare:—There is a child welfare centre at Broach which is affiliated to the Bombay Mothers and Children

Welfare Departments. PUBLIC HEALTH. Maternity and Child Welfare.

Welfare Society to which Government pays a substantial grant-in-aid for its work in connection with maternity and child welfare.

With the co-operation of the Indian Red Cross Society, Broach District Branch, child welfare work is conducted at the Aminabai Municipal Dispensary. The Broach Sanitary Association which carries out child welfare work is subsidised by Government.

LABOUR DEPARTMENT.

LABOUR. Organisation. Commissioner of Labour.

All the offices dealing with labour matters fall within the administrative control of the Development Department of the Government of Bombay. The Commissioner of Labour is the head of all such offices and under him are the Deputy Commissioner of Labour (Administration), the Chief Inspector of Factories, the Chief Inspector of Steam Boilers and Smoke Nuisances and the Government Labour Officer. The Commissioner of Labour performs the statutory functions entrusted to him under the Industrial Employment (Standing Orders) Act and supervises and co-ordinates the working of the above-mentioned other offices under his control.

The Deputy Commissioner of Labour (Administration) is responsible for the administration of the Bombay Industrial Relations Act (XI of 1946), the Industrial Disputes Act (XIV of 1947) and the Indian Trade Unions Act (XVI of 1926). He is also appointed Statistics Authority, Bombay, under the Bombay Industrial Statistics (Labour) Rules, 1951. Under him are seven Assistant Commissioners of Labour (Administration) working in Bombay and one in Ahmedabad. The jurisdiction of the Deputy Commissioner of Labour (Administration) extends over the whole State.

Under the Industrial Disputes Act, 1947, the Union Government is the appropriate authority to deal with industrial disputes concerning Industries carried on by them or under their authority or by the Railway Board. Conciliation in other labour disputes under the Industrial Disputes Act. 1947, in Broach District is handled by the Assistant Commissioner, Ahmedabad and one of the Assistant Commissioners stationed at Bombay while conciliation cases under the Bombay Industrial Relations Act are dealt with by the Assistant Commissioner, Bombay.

One of the Assistant Commissioners of Labour (Administration), Bombay, has been appointed as Registrar under the Bombay Industrial Relations Act. 1946, and has jurisdiction over the whole of Bombay State. An Assistant Registrar has also been appointed and has been invested with all the powers of the Registrar under the Act. The Registrar's work falls under the following heads, viz., (a) recognition of undertakings and occupations; (b) registration of unions; (c) maintenance of approved lists of unions; (d) registration of agreements, settlements, submissions and awards; and (e) maintenance of a list of joint committees constituted under Section 48 of the Bombay Industrial Relations Act.

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LABOUR.
Commissioner of Labour.

In the Broach district, there was on 1st July, 1954, only one union registered under the Bombay Industrial Relations Act, viz. the Textile Labour Union, Broach, with a membership of more than 1,800. It belonged to the cotton textile industry. A Joint Committee constituted in the Gopal Mills Co., Ltd., Broach, is the only Joint Committee registered under the Bombay Industrial Relations Act, in that area.

The Deputy Commissioner of Labour (Administration) Bombay is notified as Registrar of Trade Unions for the State of Bombay under the Indian Trade Unions Act, 1926.

In Broach district there were 8 trade unions registered under the Indian Trade Unions Act, 1926, at the end of the year 1953. Of these 2 were in the cotton textile industry, 3 of municipal employees, 1 in the motor transport industry and the remaining 2 in the miscellaneous industries.

The Office of the Deputy Commissioner of Labour (Information) which performed the following functions has with effect from 1st April 1953 been merged with the office of the Deputy Commissioner of Labour (Administration), Bombay

(1) Compilation and publication of the Working Class cost of Living Index Number for Bombay, Ahmedabad, Sholapur and Jalgaon.

(2) Conducting socio-economic enquiries into conditions of labour.

(3) Compiling and disseminating information on labour matters generally and statistics regarding industrial disputes, mofussil wages, employment, cotton mill production, trade unions, etc, in particular.

(4) Collection of statistices under the Bombay Industrial Statistics (Labour) Rules, 1951.

(5) Publication of two monthlies, viz., the *Labour Gazettee* and the *Industrial Court Reporter*.

Cost of Living Index.

Working Class Cost of Living Index:—There is no working class cost of living index prepared for Broach or any other centre in the Broach district.

Wages and Earnings.

Wages and Earnings:—The Industrial Court has fixed the rate of minimum wage for an unskilled worker at Rs. 26 for 26 working days in a month in the case of the Gopal Mill Co., Ltd., Broach, and the Broach Fine Counts Spinning and Weaving Co. Ltd., Broach. The scheme of standardisation of wages for cotton textile mills at Surat was made applicable to these textile mills. (Bombay Government Gazettee, Part-I-L, dated 12th January 1950, pp. 89-100). The workers in these mills are paid dearness allowance at the rate of 90% of the dearness allowance paid to the textile workers at Ahmedabad.

The Government of Bombay has fixed the rates of minimum wages for different categories of workers in respect of certain employments

specified in the schedule to the Minimum Wages Act, 1948, and the rates fixed were notified in the *Bombay Government Gazettee*, Part IV-A, dated 3rd January 1952, pages 4-20; dated 25th June 1953; p. 456; and dated 7th January 1954, p. 15.

Shops Act.

The Bombay Shops and Establishments Act (LXXX of 1948) has been applied in the district to the municipal areas of Ankleshwar, Broach, Jambusar and Rajpipla.

Provident Fund Act.

The Employees' Provident Funds Act, 1952, covers at present, the Gopal Mills Ltd., Broach. Employees numbering about 1940 are benefited under the provisions of the Employees' Provident Fund Scheme, 1952.

Employees State Insurance Act.

The scheme under the Employees State Insurance Act, 1948, has not yet been implemented in the Broach District.

Private Labour Officers have not been appointed in any of the factories in Broach. The Welfare Officers (Recruitment and Conditions of Service) Rules, 1952, framed under the Factories Act, 1948 require the occupier of every factory employing 500 or more workers to appoint one Welfare Officer.

On the 1st March 1953, the office of the Government Labour Officer, which had been a separate office till then, was merged with the office of the Commissioner of Labour, Bombay. Under the Commissioner of Labour, there are District Labour Officers at Sholapur, Kolhapur, Jalgaon, Baroda, Ahmedabad and Surat. The District Labour Officer performs the statutory functions of a Labour Officer as stipulated in the Bombay Industrial Relations Act, 1946, so far as the industries covered by that Act, are concerned. He also looks after individual complaints, etc., emanating from the industries not covered by the Bombay Industrial Relation Act, in an informal manner. The District Labour Officer is also invested with powers as additional Inspector of Factories under the Factories Act, 1948, as Inspector under Minimum Wages Act, 1948 and as Inspector under the Payment of Wages Act, 1936. The District Labour Officer, Surat, is also appointed as Honorary Inspector under the Shops and Establishments Act, 1948. In the Broach district, there is no separate establishment of District Labour Officer. The Labour matters in the district are looked after by the District Labour Officer stationed at Surat.

Minimum Wages Act.

So far as the enforcement of the provisions of the Minimum Wages Act, 1948, in the Broach district is concerned, the factories in the scheduled employments [viz., (i) rice-mills flour mills or dal mills; (ii) tobacco (including bidi-making) manufactories; (iii) oil-mills; (iv) road construction and building operations; (v) stone crushing or stone breaking; (vi) public motor transport; (vii) tanneries and leather manufactories, and (viii) salt pan industry] are looked after by the

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Arbitration.

Junior Inspectors of Factories stationed at Surat and Baroda. Non-factory establishments in these industries are looked after by the District Labour Officer, Surat.

Industrial Arbitration : The Court of Industrial Arbitration (or the Industrial Court as it is commonly referred to), Bombay, as constituted under Section 10 of the Bombay Industrial Relations Act, has jurisdiction over the Broach district. The duties and powers of the Industrial Court are detailed in Chapter XIII of the Bombay Industrial Relations Act. The Industrial Court acts as a Court of Arbitration in industrial disputes referred to it by the Government, the representative unions, and jointly by the parties to a dispute. In its appellate jurisdiction it decides appeals preferred to it from the decisions of the Labour Courts, the Wage Boards, the Registrar under the Bombay Industrial Relations Act, and the Commissioner of Labour. References on points of law can be made to it by the Conciliator, Commissioner of Labour, Labour Courts, Wage Boards and by Government. The Government may also make a reference to it for a declaration whether a proposed strike, lock-out closure or stoppage would be illegal. It also hears appeals in criminal cases pertaining to offences under the Act, from the decisions of the Labour Courts.

There are four Labour Courts in the State — two at Ahmedabad and two at Bombay. Both the Labour Courts at Ahmedabad exercise jurisdiction over the Broach district. A Labour Court is presided over by a Labour Court Judge. The Labour Court decides disputes regarding orders passed by an employer under the Standing Orders governing the relations between employee and employer, changes made in any Industrial matter specified in schedule III of the Act, and special disputes referred to it under the Act. It has also powers to decide upon the legality or otherwise of a strike, lock-out, closure, stoppage or change. The Labour Court has also jurisdiction to try persons for offences punishable under the Bombay Industrial Relations Act.

Wage Boards.

Wage Boards : There are two Wages Boards appointed for the whole State, one for the cotton textile industry and another for the silk textile industry. The Wage Boards are to decide such disputes as are referred to them by the State Government under Sections 86-C and 86-KK of the Bombay Industrial Relations Act. The Wage Boards further decide such other disputes as are directly referred to them by certain registered unions under Section 86-CC of the Bombay Industrial Relations Act, 1946.

Factory Department.

Factory Department : The Factory Department is under the administrative control of the Commissioner of Labour, but the Chief Inspector of Factories has complete control of the technical side of the work of the department over the whole State. The department is responsible mainly for the adiministration of the Factories Act

(LXIII of 1948), but the administration of the following Acts has also been assigned to it:—

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(1) The Payment of Wages Act (IV of 1936).

(2) The Cotton Ginning and Pressing Factories Act (XII of 1925) — Section 9, regarding approval of plans of new ginning factories.

(3) The Employment of Children Act (XXXVI of 1938).

(4) The Bombay Maternity Benefit Act (VII of 1929).

(5) The Minimum Wages Act (XI of 1948)

(6) The Bombay Labour Welfare Fund Act (XL of 1953).

The Department has sub-offices at Surat and Baroda, each of which is in charge of a Junior Inspector of Factories (Class II). The charge of the Broach district is divided between these Inspectors. The one at Surat exercises jurisdiction south of the Narmada and the other at Baroda has jurisdiction north of the same river. The main function of the Inspector is to ensure that provisions of the Factories Act are observed by the management of the factories to which the Act is applicable. He is also responsible for the enforcement of the other enactments with the administration of which the Factories Department has been entrusted. His activities also extend to securing labour welfare amenities such as education, recreation and sports, co-operative societies and housing. Under Section 8(4) of the Factories Act, the District Magistrate of Broach is also an Inspector for the district of Broach. In addition, all sub-divisional Magistrates, Mamlatdars, Mahalkaris and the Officers of the Public Health Department, the Government Labour Officer, the Assistant Labour Officers and the District Labour Officers, have been appointed as additional Inspectors for certain provisions of the Act.

Under rules made in accordance with Section 9, the full-time Inspector (but not an Additional Inspector) has power to prosecute, conduct or defend before a court any complaint or other proceeding arising under the Act or in discharge of his duties as Inspector.

Workmen's Compensation Act.

Workmen's Compensation Act : Under the provisions of the Workmen's Compensation Act (VIII of 1923) the Commissioner for Workmen's Compensation, Bombay, has been given exclusive jurisdiction over Bombay, Bombay Suburban District and Ahmedabad District. The Commissioner has also exclusive jurisdiction to try all cases relating to the Western and Central Railways and Hydro-Electric Companies under the management of Messrs. Tata Hydro-Electric Agencies Ltd., arising in the State irrespective of the District in which they occur. The Commissioner has also general jurisdiction over the whole State. The Civil Judge (Senior Division), Broach, has been appointed ex-officio Commissioner for Broach district.

The principal reason for giving the Commissioner for Workmen's Compensation, Bombay, jurisdiction over the whole State is to enable

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him to settle cases with insurance companies and other firms which have their head offices in Bombay City. But as this arrangement necessarily entails a certain amount of overlapping, Government have issued instructions under Section 20(2) of the Act for distribution of work between the Commissioner, Bombay, and ex-officio Commissioners. Under these instructions, the Commissioner at Bombay is authorised :—

(a) to receive deposits for distribution of compensation under sub-sections (1) and (2) of section 8;

(b) to issue notices to and to receive applications from dependants in cases of deposits under these sub-sections; and

(c) to receive agreements for registration under section 28, wherever the accident may have taken place.

Where a depoit is received or an agreement is tendered for registration, the Commissoner notifies the ex-officio Commissinoer concerned. Applications for orders to deposit compensation when no deposit under section 8(1) has been received, and other applications provided for in section 22 of the Act should be made to the ex-officio Commissioner within whose jurisdiction the accident occurs. Notices to employers under Section 10-A requiring statements regarding fatal accidents in the district are issued by the ex-officio Commissioners and reports of fatal accidents made under Section 10-B are also received by him. If after notice has been issued by the ex-officio Commissioner under Section 10-A the employer deposits the money with the Commissioner at Bombay, the latter notifies the receipt of the deposit to the ex-officio Commissioner concerned. Applications for review or commutation of half-monthly payments have to be made to the Commissioner who passed the original orders.

Payment of Wages Act.

Payment of Wages Act, 1936: In the Broach district, the Civil Judges have been appointed authorities for the areas within their respective jurisdictions.

Minimum Wages Act.

Minimum Wages Act, 1948: The same Officers who are appointed authorities under the payment of wages Act have been appointed authorities under the Minimum Wages Act to hear and decide claims arising out of payment of less than the minimum rates of wages to employees employed or paid in their respective jurisdictions.

Steam Boiler and Smoke Nuisances Department.

Steam Boiler and Smoke Nuisances Department: The Steam Boiler and Smoke Nuisances Department is under the administrative control of the Commissioner of Labour, Bombay, but the Chief Inspector of Steam Boilers and Smoke Nuisances, who is the head of Office, has full control over the technical side of the work of the department and he is responsible for the smooth working of the Indian Boilers Act, 1923, and the rules thereunder, the Indian Boiler Regu-

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lations, 1950, and the Bombay Smoke Nuisances Act, 1912, and the Rules thereunder. It is concerned with the registration and inspection of boilers together with the examination of steam pipes and their supervision, and it also conducts examinations for Certificates of Compentecy as boiler attendants and proficiency as engineers. It is also concerned with the abatement of industrial smoke in Greater Bombay and in the cities of Ahmedabad and Sholapur only.

The department has a staff of nine inspectors at present (1953), 7 stationed at Bombay and 2 at Ahmedabad. One of the inspectors having headquarters in Ahmedabad carries out inspection of boilers in the Broach district.

DEPARTMENT OF PROHIBITION AND EXCISE.

PROHIBITION AND EXCISE. Organisation.

Since the introduction of complete prohibition in the State from 1st April 1950, the former Department of Excise has come to be designated as the Department of Prohibition and Excise. The officer charged with the administration of this department in the Broach district is the Collector of Broach. In relation to this department he is responsible to the Director of Excise and Prohibition, Bombay State. He is invested with various powers under the Bombay Prohibition Act (XXV of 1949), and also exercises powers under the Dangerous Drugs Act (II of 1930), the Bombay Opium Smoking Act (XX of 1933) and the Bombay Drugs (Control) Act, 1952. Under the Bombay Prohibition Act, prohibitions or restrictions have been placed on the manufacture, import, export, transport, sale, possession, use and consumption of liquor, intoxicating drugs, hemp, mhowra flowers and molasses, and of articles containing liquor, intoxicating drugs or hemp. The Collector has powers to grant, cancel or suspend licences, permits and passes under the Act.

The District Inspector of Prohibition and Excise, Broach, assists the Collector and is in actual charge of the work of the department in the district. He is also Secretary of the District Prohibition Sub-Committee. Under him there is one Sub-Inspector of Prohibition and Excise, with headquarters at Rajpipla and jurisdiction over the talukas of Nandod, Jhagadia, and Dediapada, and Sagbara peta. The work in the other talukas is being looked after by the District Inspector himself. The District Inspector and the Sub-Inspector have also been vested with certain powers under the Bombay Prohibition Act, the Dangerous Drugs Act, the Bombay Opium Smoking Act and the Bambay Drugs (Control) Act, 1952.

Medical Board.

In each taluka a Medical Board has been constituted, consisting of the Medical Officer in charge of the Government, Local Board or Municipal dispensary and one private independent medical practitioner nominated by Government. The functions of the Board are to examine any person who applies for an addicts' permit for the use of opium, ganja or bhang for personal consumption on grounds of health, or for an increase in the existing quota, and on examination to issue a medical certificate. Medical examination of applicants for permits for foreign liquor on grounds of health is done by the Government Medical Officer at the various Government dispensaries

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PROHIBITION AND EXCISE.
Medical Board.

in the district. The certificates issued by them have, however, to be countersigned by the Civil Surgeon of Broach. For the town of Broach, the certificates are issued by the Civil Surgeon himself.

The Police Department is the chief agency to deal with detection, investigation and prosecution of offences under the Bombay Prohibition Act. Though officers of the Prohibition and Excise Department of and above the rank of Sub-Inspector have been invested with powers to investigate offences, these officers generally pass on information of the commission of offences and hand over the cases detected by them to the Police for investigation and further disposal. The Home Guards organisation also assists the Police in this work. Under section 134 of the Bombay Prohibition Act, village servants useful to Government, officers of other departments of the State Government, and officers and servants of local authorities are bound to give information to the police of breaches of the provision of the Act which may come to their knowledge, and also to prevent commission of breachs of the provisions of the Act about which they may have knowledge. Under section 133, officers and servants of local authorities are also bound to assist any police officer or person authorised to carry out the provisions of the Act. Under section 135, occupiers of lands and buildings, landlords of estates, owners of vehicles, etc., are bound to give notice of any illicit tapping of trees or manufacture of liquor or intoxicating drug to a Magistrate, Prohibition Officer or Police Officer as soon as it comes to their knowledge.

All Revenue Officers of or above the rank of Mamlatdar or Mahalkari, all Magistrates, and all Officers of the Department of Prohibition and Excise of and above the rank of Sub-Inspector have been authorised, under section 123 of the Prohibition Act, within the limits of their respective jurisdictions, to arrest without a warrant any person, whom they have reason to believe to be guilty of an offence under the Act, and to seize and detain any articles of contraband. The officer so authorised, when he arrests any person or seizes and detains any article, has to forward such person or articles, without unnecessary delay, to the Officer in charge of the nearest police station.

Effects of Prohibition.

Effect of Prohibition : Prohibiton was first introduced in the district in the year 1939-40 but was relaxed in 1940-41 so far as foreign liquor was concerned. The restrictions on foreign liquor were again imposed in the year 1950-51 in which total prohibition was brought into force throughout the State of Bombay. A comparison is therefore, given of the consumption of foreign liquor and intoxicating drugs in the year 1945-46, 1950-51 and 1952-53 :

Consumption of liquor and other intoxicants.	1945-46.	1950-51.	1952-53.
Country liqour (in proof gallons).	—	—	—
Toddy (in gallons)	—	—	—
Beer (in dozen bottles)	32¼	—	—

Effects of Prohibition.

	1945-46.	1950-51.	1952-53.
Wine (in dozen bottles)	19	—	—
Ganja (in seers)	98	8	5
Bhang (in seers)	5	10	9
Opium (in seers)	80	78	46
Spirits (superior imported in units)	2,028	—	—
Spirits (cheap Indian-made in units)	7,872	534	396

The total revenue which was Rs. 2,26,224 in 1945-46 was only Rs. 61,543 in 1950-51 and Rs. 32,305 in 1952-53.

Kinds of Permits.

Permits : Various permits are granted for the possession, use, etc. of foreign liquor. They are :—

(1) Emergency Permit

(2) Health Permit.

(3) Temporary Resident's Permit.

(4) Visitor's Permit.

(5) Interim Permit.

(6) Permit for Tourists.

(7) Special Permit for privileged personages.

The permit is granted for any quantity of foreign liquor if the permit holder is a sovereign or head of Foreign State or his consort. If the permit holder is any other person, the permit is granted for a quantity of foreign liquor not exceeding that which may be fixed by the State Government.

Toddy.

Toddy : The possession, use etc., of toddy is completely prohibited.

Denatured Spirit.

Denatured Spirit : The possession and use of denatured spirit is prohibited except under permit. A permit for possession and use of denatured spirit is granted for domestic purposes. The possession and use of denatured spirit for medical, industrial, scientific or such purposes is also regulated by the system of permits.

Country Wine and Liquor.

Country Liquor and Wine : Permits for the use of country liquor and wine for sacramental purposes only are granted to priests of certain communities, viz., Parsees, Christians and Jews.

Ganja, Bhang and Opium.

Ganja, Bhang and Opium : Ganja, Bhang and Opium are allowed to addicts only for their personal consumption on production of a certificate from the Medical Board, the maximum quantity per month allowed for an addict being 15 tolas in the case of Ganja and Bhang and 7½ tolas in the case of opium. The addict is allowed only any one of these drugs.

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Other Drugs.

Other dangerous drugs, mhowra flowers, etc. : There are also rules governing the possession, use, transport, sale, etc., of dangerous drugs, mhowra flowers, molasses, rectified spirit and absolute alcohol for industrial, medical and similar purposes.

Neera and Gur.

Neera and Palm Gur : There is an organisation for the State for working a scheme known as the "Neera and Palm Gur Products Scheme". This is now worked by the Village Industries Committee. Under it, a "BUN" Supervisor, who supervises the tapping and collection of *neera* from trees, is stationed in each area of *neera* extraction. The *neera* collected is transported in motor vans to various sale centres. There is a Manager at each sale centre who supervises the sale with the help of a salesman. Each centre has also an honorary supervisor, who is usually a social worker. Licences are issued for the manufacture of *gur* from *neera*. Groups of displaced tappers have been encouraged to take up this industry.

Prohibition Committees.

Prohibition Committee : With a view to amalgamating the activities of Government at district level, Government has set up a District Development Board in each of the districts for advising and helping Government in respect of Prohibition, Rural Development, Labour Welfare, Irrigation, Publicity, etc. With the setting up of the District Development Board at Broach, the former District Prohibition Committee has been replaced by a Prohibition Sub-Committee which now consists of nine members, six of whom are non-officials and three officials. The Chairman of the Sub-Committee is a non-official, while the District Inspector of Prohibition and Excise, Broach, is the Secretary.

Sanskar Kendras.

Sanskar Kendras : With a view to providing as much recreation and counter-attraction as possible, Sanskar Kendras have been started. These are centres where old forms of recreation are revived and new methods of recreation in consonance with the changed times are introduced. The recreation activities include : (1) out-door games like *kho-kho, hututu, atyapatya, volley-ball, football,* cricket, ring tennis, etc., (2) indoor games like carrom, ludo, snakes and ladders, cards, etc., (3) *akhadas*, physical culture exercises, and (4) adult education, library, reading room, etc. Some of these centres are run by the Prohibition Department, but there are others run by co-operative societies and other agencies.

I Sanskar Kendras run by the Department—
Rajpipla Sanskar Kendra, Rajpipla.

II Subsidised Sanskar Kendras—

(1) Nikora Sanskar Kendra, Nikora Sadhana Kutir Multi-Purpose Co-operative Society, Taluka Broach ;
(2) Sarbhan Sanskar Kendra, Sarbhan Co-operative Multi-Purpose Society, Taluka Amod ;
(3) Zanghar Sanskar Kendra, Zanghar Co-operative Multi-Purpose Society, Taluka Broach ;

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(4) Dadhal Sanskar Kendra, The Dadhal Group Multi-Purpose Co-operative Society, Taluka Ankleshwar

(5) Keshwan Sanskar Kendra; Keshwan Credit Co-operative Society, Taluka Vyara; and

(6) Mangrol Sanskar Kendra, Mangrol Multi-Purpose Co-operative Society Ltd., Taluka Rajpipla.

BACKWARD CLASS DEPARTMENT.

BACKWARD CLASS.

The Backward Class Department was created in 1931 as a result of the recommendations made in 1930 by the Depressed Classes and Aboriginal Tribes Committee. The classification recommended by the Committee and adopted by Government includes within the Backward Classes persons of three different categories, viz., (1) untouchables now classed as 'Scheduled Castes'; (2) Scheduled Tribes, formerly known as Aboriginal and Hill Tribes; and (3) such other classes of persons as Government may class as 'Other Backward Classes'. As soon as any caste or section of the population ceases to require protection or aid it may be removed from the list of Backward Classes and it will then cease to have any special connection with the Backward Class Department.

It is the policy of Government to push on vigorously with the work of amelioration of the Backward Classes so that the communities at present classified as 'backward' will be assimilated into society on a common footing with others and they may make rapid progress in economic, social, cultural and other spheres, and conditions may be created by which they will cease to be backward.

Organisation

At the head of the Department is the Director of Backward Class Welfare, with his headquarters at Poona. Under him are five Assistant Directors of Backward Class Welfare for the different regions of the State. The districts of Broach, Baroda, Panch Mahals and Surat are placed under the charge of an Assistant Director of Backward Class Welfare (gazetted officer of Deputy Collector's grade) with his headquarters at Baroda. Subordinate to him and under his direct control is the Backward Class Welfare Officer for Broach and Baroda districts, with head-quarters at Baroda. The Backward Class Welfare Officer is of the grade of a second grade Mamlatdar. He is expected to work as a kind of liaison officer between the Backward Classes and the various departments of Government. It is part of his duties to see that the fullest benefit of all legislation enacted by Government is received by the Backward Classes. He is also expected to see that the Backward Classes derive the maximum of the concessions sanctioned by Government in any field for the amelioration of the Backward Classes. He has no executive powers and is not intended to form a sort of parallel administration for the Backward Classes. There will be many occasions on which he will have to

CHAPTER 17. — Welfare Departments. BACKWARD CLASS. Various Measures of Uplift.

seek the help of the revenue and police authorities of the district as of the other departments.

The uplift of the Backward Classes is sought to be achieved in many ways. First of all, special facilities are given to them for receiving education. For example, they get free studentships in Government as well as non-Government schools, and scholarships and freeships in arts, science and professional colleges and technical institutions. In higher primary schools and secondary schools a good number of sets of scholarships are reserved for backward class students. These scholarships are granted to them on the results of competitive examinations. In addition, the Backward Class Department gives monetary help to poor and deserving students from the Backward Classes studying in higher primary, secondary, collegiate and technical institutions, by way of lump sum scholarships for the purchase of slates, books, tools, etc., and for payment of examination fees for the Secondary School Certificate and post-Secondary School Certificate Examinations.

Hostels.

One Bhil Boarding House at Rajpipla is run by the Education Department. There is one hostel, viz., Harijan Chhatralaya, Broach, meant for boys, which is managed by the Harijan Sevak Sangh, Sabarmati, Ahmedabad. There are also two other hostels, one at Umalla for Bockward Class girls (*Kanya Ashram*) and the other at Jhagadia for Backward Class boys (*Kumar Ashram*), run under the auspices of the Bhil Seva Mandal, Dohad, and the Harijan Sevak Sangh, Sabarmati.

Uplift Measures.

With effect from 1st November, 1950, in regard to Class I and Class II posts in the State service and other State Gazetted services, 12½ per cent. of vacancies are reserved for Backward Classes as a whole. Vacancies in Class III and Class IV services are reserved for various sections as follows :—

	Class III Services.	*Class IV Services.*
(i) Scheduled Castes	6%	7%
(ii) Scheduled Tribes	7%	9%
(iii) Other Backward Classes	9%	11%

The maximum age-limits prescribed for appointment to Class III and IV services and posts under the relevant recruitment rules are relaxable by five years in favour of Backward Class candidates.

Housing.

Special attention is devoted to provision of housing accommodation for the Backward Classes. The Backward Class Department helps in providing housing sites for members of the Backward Classes by acquiring lands and disposing of the plots to individual members at a nominal occupancy price fixed in consultation with the Collector of the district. Under a Post-war Reconstruction Scheme, Backward Class Housing Societies are eligible to receive an interest-free loan

Welfare Departments. BACKWARD CLASS. Uplift Measures.

up to 75% of the cost of construction limited to Rs. 1,500/- in Backward areas and Rs. 2,000/- in other areas. Government have ordered in the same scheme that free provision should be made for three gunthas of land for a Backward Class family engaged in agricultural pursuits and one and a half gunthas of land for a Backward Class family engaged in non-agricultural pursuits. With a view to breaking down the isolation of Scheduled Caste quarters, Government have also ordered that the houses of Scheduled Classes should be shifted closer to the main village sites, waste lands, where available, being granted to the Scheduled Castes for housing purposes on payment of reasonable occupancy price. Similar concessions are granted to individual members of Backward Classes where organisation of a Backward Class Co-operative Housing Society is not possible. There are two housing societies in Broach district. (1) Diva Pachhat Varga Sahakari Makan Mandali Ltd., Diva, Taluka Ankleshwar. (This institution was granted help of Rs. 18,570/- so far i.e., up to September, 1954). (2) Bhadam Pachhat Varga Cooperative Housing Society Ltd., at Bhadam, Taluka Nandod. (No help has been given to this society).

Training in Industries.

The economic regeneration of the Backward Classes is promoted by various means. With a view to improving the technique of the hereditary occupations of these classes, Government have sanctioned a number of peripatetic parties (15 in 1951) for imparting training to them in various industrial subjects. Stipends are granted to students admitted to these classes. Backward Class students are also awarded scholarships for taking industrial training at the various technical and industrial institutions. After training, the Backward Class artisans are encouraged to organise industrial co-operatives and help in the form of loans and subsidies is granted to such societies. Individual Backward Class artisans can also take advantage of similar financial assistance. Co-operative farming societies of Backward Classes also get State help in the form of loans, subsidies, land for cultivation, revenue free, etc.

The Tanners' Producers' Co-operative Society at the village Manubar (Broach taluka), where the members of the Rohit community have organised themselves to make advancement of their village industry of tanning, was formed by the Backward Class Welfare Officer, Dohad. The Weavers' Society at Kanhva (Jambusar taluka) has also been started for the development of weaving. There is also a Tanners' Demonstration School started at the village of Kalak (Jambusar taluka) for training the Backward Class people in the tanning industry. The expenditure incurred on establishment charges of this Tanning School in Broach district during 1953-54 was Rs. 1,722-3-0. The instructor of the school has been attached to the Tanning Society. One society of Harijans at Kavitha village (Broach taluka) has also been started for the development of bamboo work.

In forests areas, help regarding cutting of fuel and other facilities can be obtained from the Forest Department. The

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Welfare Departments.

BACKWARD CLASS.

Training in Industries.

Revenue Department is extending its active help in the matter of disposal of waste lands for cultivation to Backward Class cultivators and grant of tagai loans, housing sites, etc. Three hundred acres of land were granted to the Rohits of Broach district for agricultural purposes in order to form an ideal village. A scheme is now at work in Dediapada taluka to settle the Adivasis in an area known as "Sarapada Block", which can be brought under the plough without much difficulty. The Adivasis are helped with tagai advances to cultivate this land. During the year 1952-53, 2,819 acres and 3 gunthas of land were granted to 775 Backward Class agriculturists for cultivation and 10,798 Backward Class persons were granted tagai loans of Rs 2,67,009.

Social Uplift.

Measures have been taken to ensure the social uplift of the Backward Classes, especially Harijans. The Bombay Harijan (Removal of Social Disabilities) Act (X of 1946) and the Bombay Harijan Temple Entry Act (XXXV of 1947) as amended in 1948, have been enacted with a view to bringing about the complete removal of untouchability as far as public and civic rights are concerned.

A Sub-Committee of the District Development Board deals with the amelioration of the Backward Classes. This Sub-Committee consists of official as well as non-official members. The Vice-Chairman of the District Development Board is the Chairman of the Sub-Committee. The Backward Class Welfare Officer, Baroda, who is in charge of Broach district is the ex-officio Secretary of the Sub-Commitee. This sub-committee is of a consultative and advisory nature. Its functions are:

(a) to advise on questions referred to it by the Backward Class Welfare Officer or the Backward Class Board;

(b) to provide information regarding the grievances and needs of the Backward Classes;

(c) to take suitable measures for the removal of untouchability and other social disabilities and also for the removal of harmful social customs among the various Backward Classes; in particular to explain the provisions of the laws regarding the removal of social disabilities of Harijans and authorisation of temple entry and to maintain a watch over the working of these laws and to bring to the notice of the authorities concerned activities and incidents contrary to the principles or provisions of these laws occuring within the district; and

(d) to carry on propaganda work for the amelioration of the conditions of the Backward Classes.

The Vice-Chairman of the District Development Board is the Chairman of the Sub-Committee. The Backward Class Welfare Officer, Broach, is the ex-officio Secretary of the Sub-Committee. The Gujarat Harijan Sevak Sangh, Sabarmati (Ahmedabad) does the work of amelioration of the Backward Classes including Harijans in

Broach district also, and the Sangh was paid a grant of Rs. 15,643-5 0 during 1953-54 by the Backward Class Department for propaganda and other ameliorative work for the Backward Classes in the Gujarat area.

CHARITY COMMISSIONER.

CHARITY COMMISSIONER. Bombay Public Trusts Act.

Prior to 1950, the religious and charitable trusts in the State were governed by various enactments, Central as well as Provincial, based on religion. In 1950, a composite legislation called the Bombay Public Trusts Act (XXIX) of 1950, was passed, which can be made applicable to all public trusts without distinction of religion. This Act defines "public trust" as "an express or constructive trust for either a public religious or charitable purpose or both, and includes a temple, a math, a wakf, a dharmada or any religious or charitable endowment and a society formed either for a religious or charitable purpose or for both and registered under the societies Registration Act (XXI) of 1860."

Public Trusts Affected.

The State Government is empowered to apply this Act to any public trust or class of public trusts, and on such application the provisions of previous Acts cease to apply to such trust or class of trusts. The Act has been made applicable to the following classes of public trusts with effect from 21 January 1952:—

(1) temples;

(2) maths;

(3) wakfs;

(4) public trusts other than (1), (2) and (3) above, created or existing solely for the benefit of any community or communities or any section or sections thereof;

(5) societies formed either for religious or charitable purposes or for both and registered under the Societies Registration Act, 1860;

(6) dharmadas, *i.e.*, any amounts which, according to the custom or usage of any business or trade or agreement between the parties relating to any transaction, are charged to any party to the transaction or collected under whatever name as being intended to be used for a charitable or religious purpose;

(7) all other trusts, express or constructive, for either a public religious or charitable purpose or for both.

The Act has not been made applicable to the charitable endowments vested in the Treasurer of Charitable Endowments under the provisions of the Charitable Endowments Act (VI of 1890).

Administrative Officers.

A Charity Commissioner with headquarters at Bombay has been appointed to administer the Act. The first Charity Commissioner was appointed on the 14th August 1950. The Assistant Charity

CHAPTER 17. — Welfare Departments. CHARITY COMMISSIONER. Duties of Trustees.

Commissioner has been appointed for the Baroda Region which consists of the districts of Baroda, Kaira, Panch Mahals, Broach, Surat, and Dangs. The Assistant Charity Commissioner is directly responsible to the Charity Commissioner.

The Act imposes a duty on the trustee of a public trust to which the Act has been applied to make an application for the registration of the trust within three months of the application of the Act or its creation, giving particulars specified in the Act, which include-(a) the approximate value of moveable and immoveable property owned by the trust, (b) the gross average annual income of the trust property, and (c) the amount of the average annual expenditure of the trust. No registration is, however, necessary in the case of *dharmadas* which are governed by special provisions of the Act in certain respects. Trusts registered under any of the previous Acts are deemed to be registered under this Act. According to statistics gathered up to 30th June 1954, the total number of public trusts registered in the Broach district was 2,406, and the approximate value of their moveable and immoveable properties was Rs. 5,95,72,112. The gross annual income of these trusts was Rs. 14,56,821 and their average annual expenditure for religious and charitable purposes Rs. 7,36,647.

A registration fee ranging from Rs. 3 to Rs. 25 is levied depending on the value of the property of the public trust. An annual contribution at the rate of 2 per cent. of the gross annual income is also recovered which is credited to the Public Trusts Administration Fund created under the Act. The contribution does not form part of the general revenue of the State. Public Trusts exclusively for the purpose of advancement and propagation of secular education or medical relief and public trusts having a gross annual income of Rs. 300 or less are exempted from the payment of contribution. Deductions from the gross annual income for computing contribution are allowed in respect of amounts spent on the advancement and propagation of secular education, medical relief, donations, grants received from Government or local authorities, interest on depreciation or sinking fund, taxes to be paid to Government or local authority, etc. The contribution is levied on the net annual profits in the case of public trusts conducting a business or trade.

Every trustee has to keep regular accounts of the trust which have to be audited annually by Chartered Accountants or persons authorised under the Act. A Chartered Accountant can audit accounts of any public trust but other persons authorised under the Act are permitted to audit accounts only of public trusts having a gross annual income of Rs. 1,000 or less. The auditor has to submit a report to the Deputy or Assistant Charity Commissioner of his region on a number of points, such as whether accounts are maintained according to law and regularly, whether an inventory has been maintained of the moveables of the public trust, whether any property or funds of the trust have been applied on an object or purpose not

Welfare Departments. CHARITY COMMISSIONER. Duties of Trustees.

authorised by the trust, whether the funds of the trust have been invested or immoveable property alienated contrary to the provisions of the Act, etc.

If on a consideration of the report of the auditor, the accounts and explanation, if any, furnished by the trust or any other person concerned, the Deputy or Assistant Charity Commissioner is satisfied that the trustee or any other person has been guilty of gross negligence, breach of trust or misapplication or misconduct resulting in a loss to the trust, he has to report to the Charity Commissioner who after inquiry determines the loss, if any, caused to the trust and surcharges the amount on the person found responsible for it. No sale, mortgage, exchange or gift of any immoveable property and no lease for a period exceeding ten years in the case of agricultural land and three years in the case of non-agricultural land or building belonging to a public trust is valid without the previous sanction of the Charity Commissioner. The trustee of a public trust is bound to invest the surplus funds of the trust in public securities or first mortgage of immoveable property on certain conditions. For making an investment in any other form, the permission of the Charity Commissioner must be obtained.

Application of Funds by cy pres.

If the original object of a public trust fails wholly or partially, if there is surplus income or balance not likely to be utilised, if it is not in the public interest expedient, practicable, desirable, necessary or proper to carry out, wholly or partially, the original intention of the author of the public trust or the object for which the public trust was created, an application can be made to the District Court or City Civil Court, Bombay as the case may be, for application *cy pres* of the property or income of the public trust or any of its portion.

Suits for Reliefs.

If there is a breach of trust or a declaration is necessary that a particular property is the property of a public trust, or a direction is required to recover the possession of such property, or a direction is required for the administration of any public trust, two or more persons having an interest in the trust or the Charity Commissioner can file a suit in the District Court or City Civil Court, Bombay as the case may be, to obtain reliefs mentioned in the Act. If the Charity Commissioner refuses consent, an appeal lies to the Bombey Revenue Tribunal constituted under the Bombay Revenue Tribunal Act (XII of 1939). The Charity Commissioner can also file such a suit on his own motion.

The Charity Commissioner may, with his consent, be appointed as a trustee of a public trust by a Court or by the author of a trust, provided his appointment is made as a sole trustee. In such cases, the Charity Commissioner may levy administration charges on these trusts as prescribed in the rules framed under the Act.

Registration.

Inquiries regarding the registration of a public trust or regarding the loss caused to a public trust or public trusts registered under the

CHAPTER 17. — Welfare Departments. CHARITY COMMISSIONER.

previous Acts, in consequence of the act or conduct of a trustee or any other person, have to be conducted with the aid of assessors not less than three and not more than five in number. The assessors have to be selected, as far as possible, from the religious denomination of the public trust to which the inquiry relates. The presence of assessors, can, however, be dispensed with in inquiries where there is no contest. A list of assessors has to be prepared and published in the Official Gazette every three years. Districtwise lists of assessors have already been prepared and published in the *Bombay Government Gazette.*

Charities under Charitable Endowments Act, 1890.

The Charity Commissioner is deemed to be and to have always been the Treasurer of Charitable Endowments for the State of Bombay, appointed under the provisions of the Charitable Endowments Act, 1890.

Punishment.

Contraventions of the Act amount to offences and are punishable with maximum fines ranging from Rs. 500 to Rs. 1,000 depending on the contravention. The Charity Commissioner is the sole authority for launching prosecutions in the case of such contraventions.

Miscellaneous Departments.
TOWN PLANNING AND VALUATION.

CHAPTER 18—MISCELLANEOUS DEPARTMENTS.

TOWN PLANNING AND VALUATION DEPARTMENT.

AT THE HEAD OF THE TOWN PLANNING AND VALUATION DEPARTMENT is the Consulting Surveyor to Government. The appointment of the Consulting Surveyor was first made on 3rd May 1912. The object was to get expert advice in valuation of real property. When the Bombay Town Planning Act (I of 1915) was passed, the Consulting Surveyor was placed also in charge of work connected with town planning. His headquarters is in Poona, and as there is no separate branch office for the Broach district, the work relating to the district is done by the branch offices of the department at Ahmedabad and Baroda when so directed by the Consulting Surveyor or at the instance of the Collector of Broach.

The provisions of the Bombay Town Planning Act enable the planner to ignore to a great extent existing plot boundaries. In designing his layouts existing holdings can be reconstituted and made subservient to the plan, and building plots of good shape and frontage can be allotted to owners of lands ill-shaped for building purposes and without access. The cost of a scheme can be recovered from the owners benefited to the extent of fifty per cent. of the increase in the value of the land estimated to accrue by the carrying out of the works contemplated in the scheme. When a draft scheme prepared by a local authority in consultation with the owners is sanctioned, an Arbitrator is appointed. His duties are to hear each owner individually, consider his objections or proposals and make suitable adjustments or amendments in the draft scheme proposals, if found necessary. The department also provides the necessary Arbitrator. It is part of the activities of the department to prepare a draft town planning scheme on behalf of a local authority when requested to do so. The department issues certificates of tenures and title in respect of the plots after a scheme is finally sanctioned. Preparation and scruting of layouts of co-operative housing societies, when they apply for lands from Government, is one of the other duties of the department. The Consulting Surveyor is often called upon to give adivce on or to prepare layouts of Government, municipal or private lands for purposes of town extension.

This Department has prepared layouts for an area covering about 4,000 acres. Total valuation to the tune of a little over three lakhs of rupees has been done and communicated to the revenue authorities concerned. This figure is inclusive of the valuation required to be

CHAPTER 18. — Miscellaneous Departments. TOWN PLANNING AND VALUATION.

done for scrutiny of draft awards. The quinquennial valuations in respect of the rateable values of Government buildings beneficially occupied within the limits of Broach Municipality were fixed from time to time. Over and above these activities, the most outstanding work done was the preparation of a Master Plan of Broach which provides for removal of congestion in the old town, open spaces, wider roads and development proposals for the outlying areas. The proposals of this Master Plan are to be executed by the Local Authority to the extent that funds are available for this purpose.

In land acquisition cases the Consulting Surveyor to Government has to render expert advice to Government in matters of valuation and in some cases where the claimants go in for court references on the awards of the Land Acquisition Officers. He also gives expert evidence in the court in such references. His department is entrusted with the fixation and revision of standard rates of non-agricultural assessment. It is also called upon to fix the rateable value of Government properties within the limits of borough municipalities for determination of municipal assessment. When Government has to sell, lease or purchase land, the department is consulted as regards the price and rent.

Revenue officers of Government are sent to this department for training in the broad principles of village planning, valuation, fixation of non-agricultural assessment, rural development, etc. Classes in town planning are conducted by the officers of the department in the Poona Branch of the Local Self-Government Institute.

Recoveries are made from local authorities and private persons who avail themselves of the services of the Consulting Surveyor or his officers in the preparation of town planning schemes, layouts, etc., and also for the performance of the duties as Arbitrator in town planning schemes.

DIRECTORATE OF PUBLICITY.

DIRECTORATE OF PUBLICITY

The Directorate of Publicity, Government of Bombay, has six Regional Publicity Offices. Two of them are for the Gujarat region, one at Ahmedabad and the other at Rajkot.

The District of Broach is under the jurisdiction of the Regional Publicity Officer stationed at Ahmedabad, who acts as a link between the Government officers and the press in the districts.

District Publicity officer

As in every district of the State, the district of Broach has also a District Publicity Officer who is in charge of a Mobile Publicity Van, which is equipped with 16 m. m. projector. The District Publicity Officer arranges free film shows and talks on various nation-building subjects. The films are both instructive and entertaining and usually attract large crowds in villages where, due to illiteracy, the printed word is ineffective. The District Publicity Officer also delivers talks explaining Government policies and programmes and keeps the rural folk informed about concessions and facilities offered

to them by the Government. The District Publicity Officer also issues news items of local importance and sends items of regional importance to the Regional Publicity Officer. He keeps in touch with the various district offices and the local Press.

DIRECTORATE OF PUBLICITY

To enable the rural folk to listen to the rural programme broadcast by the All-India Radio, Ahmedabad, the Government of Bombay has installed community sets in the villages of the district of Broach as elsewhere in the State. This district at present has 27 such sets and they are maintained by the Supervisor who is also stationed at Broach.

The Regional Publicity Officer at Ahmedabad supervises the work of the District Publicity Officer and the working of the radio sets.

All these officers are under the administrative control of the Director of Publicity, Bombay. The Collector of the District and the Publicity Sub-Committee of the District Development Board also aid and advise these officers in their work. Some of the members of the Committee, including its Chairman (who is Vice-Chairman of the Board), and social workers accompany the van and deliver talks in villages on nation building activities.

ADMINISTRATION OF MANAGED ESTATES.

MANAGED ESTATES.

On many occasions Government takes over the administration of estates of minors, lunatics and persons incapable of managing their own property. There are two pieces of legislation in operation in the Broach district which govern such administration. One is a Bombay Act, the Bombay Court of Wards Act (I of 1905) and the other a Union Act, the Guardians and Wards Act (VIII of 1890). The idea in Government administering the estates of minors and lunatics is to secure proper care and management of the estates concerned. In the case of persons incapable of managing their own property, assumption of superintendence of the estate is undertaken only when the estate is encumbered with debt or mismanaged or has no one capable of taking proper care of it, and Government is of opinion that it is expedient in the public interest to preserve the property of the person for the benefit of his family and the property is of such value that economical management by the Government agency is practicable

Court of Wards Act.

Under the Bombay Court of Wards Act, the Collector of Broach is the Court of Wards for the limits of his district. The State Government has, however, powers to appoint, in lieu of the Collector, either a special officer or a board consisting of two or more officers to be the Court of Wards. Delegation of the powers of the Court of Wards to the Collector, Assistant or Deputy Collector is provided for. The Court of Wards is empowered, with the previous sanction of the State Government, to assume the superintendence of the property of any landholder or of any pensionholder who is

Court of Wards Act.

"disqualified to manage his own property." Those who are deemed to be disqualified are : (a) minors; (b) females declared by the District Court to be unfitted to manage their own property; (c) persons declared by the District Court to be incapable of managing or unfitted to manage their own property; and (d) persons adjudged by a competent civil court to be of unsound mind and incapable of managing their affairs. The Court of Wards cannot, however, assume superintendence of the property of any minor for the management of whose property a guardian has been appointed by will or other instrument or under section 7(1) of the Guardians and Wards Act.

Guardians and Wards Act, 1890.

Upto 31st July 1954, minors' estates under the Guardians and Wards Act, 1890 (Union Act) were managed by the Deputy Nazir, District Court, Broach, as guardian of the properties of the minors' estates. On account of separation of the Executive and Judiciary the District Court of Broach cancelled the appointment of the Deputy Nazir and appointed the Collector of Broach as guardian. On 1st August 1954, 55 Estates were taken under the Collector's management. The powers of the Collector for the purposes of the Guardians and Wards Act, 1890, have been delegated to the Personal Assistant to the Collector from 2nd November 1955.

CHAPTER 19—VOLUNTARY SOCIAL SERVICE ORGANISATIONS.

CHAPTER 19.

Voluntary Social Service Organisations.

ORIGIN, GROWTH AND DIRECTION.

APART FROM EFFORTS DIRECTLY MADE BY GOVERNMENT through their administrative machinery to bring about the material and moral advancement of the people, there are generally found in modern society non-official organizations which are established for achieving the same purpose and which consist of persons who are inspired by the impulse to serve the public cause. It is not the expectation of getting any monetary remuneration or return that is the driving force behind this enthusiasm to spend one's time and energy (and may be sometimes even money) in setting up institutions by collective action and in conducting them. The urge to help in the cause of national uplift, particularly when there is a keen and general awareness of the woefully backward condition of the nation, seems to be a normal phenomenon in social history. Guided by such an urge, a few ardent individuals, binding themselves together, choose particular spheres of social welfare as e.g. spread of education, special attention to the problems of backward classes, encouragement to art and literature, health and hygiene medical relief, libraries etc - for their organized effort and this activity conducted on a purely voluntary and honorary basis has often proved to be a valuable contribution to the progress of society. As in other districts so in Broach, several such public institutions have been in existence and functioning It would be interesting to know something about the structure and activities of the more important of such bodies.

Progressive Education Society.

With a view to provide facilities for the education of the people of Broach city and villages round about, the Progressive Education Society was established in the month of June, 1946. During the initial years, the society confined its activities only to rural areas by conducting educational classes in different villages round about the city. But recently the society has started a high school —"Progressive High School"— which is housed in a rented building in Lal Bazar, Broach city. The society has a general body of its members and day to day matters are looked after by an Executive Committee. The school has on roll about 300 students receiving education.

Broach Education Society.

The Broach Education Society's Union High School is one of the oldest educational institutions of Broach city. It was established in the year 1911 with the object of providing primary and secondary education and training in domestic industries and handicrafts to its students. The school is housed in its own spacious buildings in Juna

CHAPTER 19. — Voluntary Social Service Organisations.

Bazar. In addition to its usual educational activities, it imparts special training in boating, gardening and music. In fact, its music circle has been affiliated to the Sangeet Natak Akadami of New Delhi, a body sponsored by the Government of India. Very recently, the Union High School has started divisions of the Auxiliary Cadet Corps.

Parsi Panchayat's Bai Motlabai Wadia Girls' High School.

Prompted by a desire to educate girls of Broach upto secondary standard and also to teach useful handicrafts to adult ladies, the Parsi Panchayat of Broach established in the year 1904 Bai Motlabai Wadia Girls' High School. The School conducts primary and secondary classes and is managed by a committee of 8 members of the Parsi Panchayat. The school is open to girls of all communities; but a larger number of its students is drawn from the local Parsi Community.

Broach Jilla Vidyarthi Sahayak Sahakari Mandal Limited.

The Broach Jilla Vidyarthi Sahayak Sahakari Mandal, Limited (the Broach District Students Aid Cooperative Society Limited) was established in the year 1931 with a view to promote higher education by providing financial assistance to deserving and poor college students, especially those receiving commercial, industrial, agricultural, and engineering education. The mandal has at present (1956) 422 members and membership increases yearly by 20 to 25 persons. The mandal advances loans to students at a nominal rate of interest of 4½ percent and the loans have to be repaid in convenient instalments during the ten years immediately following the date of mployment of the student. The loans have to be backed by two personal sureties and an insurance policy. The share capital and other funds of the mandal are Rs. 29,550. So far 108 students have taken financial assistance from the mandal. Under the mandal's scheme, one lady student has obtained a Degree in Ayurveda; and two students have proceeded to United States of America for higher education in Engineering. The mandal experiences great difficulty in obtaining funds at cheap rates of interest so as to enable it to make advances to students also at cheap rates. The mandal is managed by a Managing Committee consisting of seven members including the chairman and an Honorary Secretary.

Narmada Kelvani Mandal Shuklatirth.

At the village Shuklatirth, six miles away from Broach, there is a high school, and an *ashram* attached to it, run by the Narmada Kelavani Mandal. The mandal was established in the year 1915 with the object of spreading education in Broach district and areas round about. The name of the high school conducted by the mandal is "The Narmada High School" and is housed in a spacious owned building on the banks of the Narmada river in the village Shuklatirth. Besides conducting the usual primary and secondary classes, the school also arranges for interschool conferences, picnics and hiking, drawing classes, Hindi teaching and divisions of scouting and Auxiliary Cadet Corps. The mandal has 243 members of

which 35 are life members. There is a managing committee of 15 members and also an executive committee of 7 members, which look after the management of the school and the ashram attached to it.

Vidya Vinod Mandal, Bhalod.

The Vidya Vinod Mandal was established in the year 1908 at Bhalod a village in the Jhagadia taluka, with a view to spread education among the residents of the village and areas round about. The mandal has 55 members and has been conducting a secondary English School (Shri Mahatma Gandhi Vidyalaya) for the past 22 years. It also conducts a Sanskrit Pathshala and maintains a public library for the use of the local inhabitants. The management of the mandal's activities is looked after by an Honorary Secretary.

Nutan Kelavani Mandal Jhagadia.

In the year 1937, some of the residents of Jhagadia interested in the cause of spreading education in Jhagadia and the Rajpipla subdivision, formed themselves into an educational society styled as "Nutan Kelavani Mandal" and took over the management of the Diwan Dhanjishaw Middle School which had been established in the year 1914. The school was converted into a High School. The mandal has 39 life members.

The Diwan Dhanjishaw High School has a spacious building of its own and has special halls for science laboratory, drawing classes etc. It has attached to it a small hostel for its students and quarters for the Principal within the school compound. Recently, 3 acres of land have been acquired by the school for making it a play ground. The school is making good progress under the supervision of the Nutan Kelavani Mandal. The school is managed by a managing board consisting of 15 members and an executive committee of six members. The finances for the school are managed by the mandal's Board of Trustees. A notable feature of this institution is that the members of the teaching staff of the school conduct free educational classes before and after the school hours, for the benefit of those who cannot attend regular school classes for some reasons.

Nutan Shikshan Sangh, Umalla.

With the object of spreading literacy and education in the Rajpipla Sub-division of Broach district in general and Jhagadia taluka in particular the Nutan Shikshan Sangh was established in the year 1953 on the 18th day of the month of June. The Sangh was registered under the Societies Registration Act (XXI) of 1860, and consists of 31 members. It conducts a school at Umalla, Jhagadia taluka, by name Shree Navdurga School. It has classes from 5th to 9th standards and has proved a boon to the residents of Umalla and villages round about. The management has introduced 10th standard class also in the school The Navdurga School is managed by an Executive Committee elected by members of the Nutan Shikshan Sangh.

Navachetan Vidya Mandir, Valia.

The Navachetan Education Society's school, Navachetan Vidya Mandir, was established at Valia on 20th March 1952 with a view to propogate education in Valia Mahal regardless of class, caste, creed and religion. The objects of the Vidya Mandir are to promote

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montessoric, primary and secondary education, and to provide financial assistance by way of loans and scholarships to students undergoing technical, commercial and physical education.

Navachetan Vidya Mandir, Valia.

The school started with standards from V to IX but subsequently standard X was also opened. It is proposed to start XIth standard this year. Besides providing education in the above standards, the school also takes a very keen interest in the cultural and developmental activities of the Valia-Jhagadia Community Development Block, Auxiliary Cadet Corps, Scouting etc. The school conducts a seminar where current problems are discussed by students. It also runs a cooperative store for the benefit of its students and teachers. The school serves as centre for various Hindi, Drawing and Primary School Certificate Examinations. Its students have organised a number of small committees to promote extra-curricular activities such as cultural activities, gardening, dissemination of news, and promotion of the study of Sanskrit language. The school is making quite a good progress; but is handicapped by lack of adequate funds, accommodation and qualified teachers. The school is managed by the Navachetan Education Society which has 25 persons as members.

Avidha Gam Seva Mandal, Avidha (T. Jhagadia).

The Avidha Gam Seva Mandal was established in the year 1938 at Avidha, a place in the old Rajpipla State, and its objects were to solve the various problems of the village by organised planning. Any resident of the village, above 18 years of age, could become its member and the activities of the mandal are conducted by an Executive Committee consisting of 20 members, elected from the general membership.

In the initial stages, the mandal was looking after the lighting arrangements, public health and sanitation of the village. The old Rajpipla State, gratified by the activities of the Mandal, entrusted the management of the primary girls and boys schools to the Mandal. Under the management of the mandal, the schools developed into a high school and continued to render yeomen service in the field of education. But after the merger of the Rajpipla State in Bombay State, the primary classes of the school were taken over by the Broach District Local Board and the High School section by the Education Department of Bombay

The Avidha Gam Seva Mandal was also managing a local library (Rameshwar Pustakalaya) and was also maintaining a fire brigade engine. But the management of these two has been passed on to the local *gram panchayat*.

The mandal has a fund of Rs. 3,460; has an annual income of Rs. 225, and spends Rs. 345 per year on charitable items.

Rajpipla Vidyarthi Sahayak Mandal, Rajpipla.

The Rajpipla Vidyarthi Sahayak Mandal, Rajpipla (The Rajpipla Students Aid Society) was established on 7th September 1952 with a view to provide financial assistance to deserving students of the

Rajpipla Vidyarthi Sahayak Mandal, Rajpipla.

Rajpipla town so as to enable them to achieve an all-round development through education. This society is registered under the Bombay Public Trusts Act of 1950 and the membership is comprised of individual members who have to pay Re. 1 per annum as membership fee. Donations are also accepted by the society. The society distributes fees and books among deserving students irrespective of community and caste. The society is managed by a Board of Trustees and the day to day matters are looked after by an honorary secretary. As prescribed in the Bombay Trust Act the accounts of income and expenditure are audited by a registered chartered Accountant.

Gujarat Vyayam Pracharak Mandal, Rajpipla.

With a view to propagating in Gujarat, gymnastic activities among the youth and in order to improve their physical health, strength and their love for good life, the Gujarat Vyayam Pracharak Mandal was established in the year 1935 with its headquarters at Rajpipla. Since its establishment the Mandal has been rendering yeomen's service to the nation by enthusing the youth of Gujarat to take more and more interest in gymnastic and other health building activities. The Mandal acts as an apex body for organisation of various gymnasiums, athletic bodies and games associations in the whole of the Gujarat, Saurashtra and Kutch. In the year 1955-56, 142 bodies were affiliated to the mandal, which included 54 gymnasiums, 12 recognised associations and 2 regional committees etc. The mandal also conducts summer exercise camps, Gujarat Olympic games, Body Beautiful Competitions and also runs the Chhotubhai Purani Vyayam Maha Vidyalaya at Rajpipla. Besides, it arranges publication of books and other literature relating to helth and have also started a music class. The mandal also arranges the annual meetings of the Gujarat Vyayam Parishad. In the year 1956 it organised a N. C. C. camp.

Individual membership of the mandal is of various types and they have been detailed below:—

(1) *Mahadata*:—Chief Patron paying Rs. 10,001 and more (2) *Ashrayadata*:—Benefactor paying more than Rs. 5,001 but less than Rs. 10,001; (3) *Data*:—Donor, paying more than Rs. 1,001 but less than Rs. 5,001. (4) *Sahayak*:—Patron, paying more than Rs. 501 but less than Rs. 1,001 (5) *Ajivan Sabhya*:--Life member, paying more than Rs. 150 but less than Rs. 501. (6) Annual member paying Rs. 5 per year.

Besides individual membership, the mandal also enrols affiliated gymnasiums, recognised associations of games and regional vyayam mandals. Eminent persons such as those who agree to work for the mandal throughout their lifetime, physical education propagandists, gymnasium and games experts etc., are elected to Honorary membership by the Executive Committee.

The day to day activities of the mandal are managed by an Executive Committee consisting of 20 members including a Chairman, a

Vice Chairman, a General Secretary and three Joint Secretaries. The Executive Committee is representative of the different classes of membership and is elected by individual members and affiliated member bodies.

There are five sub-committees which look after the organising of summer exercise camps, olympic games, Vyayam Mahavidyalaya, Body Beautiful Contests and Publications.

Shri Chhotubhai Purani Vyayam Mahavidyalaya, Rajpipla.

The Gujarat Vyayam Mandal started an Institute of Physical Education in the year 1950 with a view to impart scientific physical education and the Institute was named after the late Shri Chhotubhai Purani, an eminent nationalist leader and a promoter of the cause of physical education and athletics. The Institute imparts training in modern Europeon and Indian physical education. It has a one year Government recognised Certificate Course which is open to men and women who have passed the matriculation examination of recognised Universities. Advantage of this course is being taken by teachers of various schools and colleges of Gujarat. The institute has got a specially trained staff and regular classes-both of theory and practicals are held Since the establishment of this Institute in 1950, 245 men and 11 women had training in the Institute. In the year 1955-56 there were 115 men and 5 women students on the roll.

The institute has spacious premises on the outskirts of the town and has an extensive open space for practical gymnasium practise and games. The Institute also provides facilities of indoor games such as carrom, draughts, chess, table tennis etc. Students of the Institute also receive rifle training and very recently Government have allowed them to start a small rifle club with licences for two rifles. Special training classes have been arranged by the Institute to impart training in games, massage, and rhythmical exercises. There were 115 men and 5 women students on the roll.

The Institute is under the management of the Gujarat Vyayam Mandal who have a special sub-committee of 7 persons. The sub-committee looks after the day to day activities of the Institute. There is a Principal for the Institute who looks after the academic and administrative sides of the Institute The financial management of the Institute is done by Shri Chotubhai Purani Memorial Trust.

Broach Jilla Vyayam Mandal, Broach.

The Broach Jilla Vyayam Pracharak Mandal was established some 22 years ago but was not doing much work. It was in 1952 that its activity began with vigour and it was renamed as Broach Jilla Vyayam Mandal. Its objects are to build up the character and health of the Broach youth by propagating gymnastic activities, conducting gymnasiums and associations for various games. Like the Gujarat Vyayam Pracharak Mandal, this mandal acts as a kind of apex body for gymnastic and other athletic activities of the Broach district. It arranges athletic competitions in various talukas, organises special athletic institutions for women, conducts every year the District Physical Education Conference and Olympics, publishes

literature connected with games, physical education and gymnastic activities and disseminates important news of the athletic and sports world. It affiliates gymnasiums, sports and games associations and physical education sections of various educational institutions. It has also a large variety of individual membership such as Donor, Patron, life member and annual member. The Physical education experts are elected to its membership. The mandal's day to day activities are looked after by a managing committee of 12 members including chairman, vice-chairman, secretary and a joint secretary.

Broach Jilla Vyayam Mandal, Broach.

Batuknath Sarvajanik Vyayamshala, Broach.

One of the oldest institutions of Broach City is the Batuknath Sarvajanik Vyayamshala (Batuknath Public Gymnasium) which was established in the year 1913 to develop the youth both physically and mentally through an organised training in Indians and foreign games and exercises. This Vyayamshala has been classified as First Grade by Government. It is one of the three biggest gymnasiums of the Bombay State and the biggest in Gujarat. It imparts training in all categories of Indian and modern games. There are about 150 members of the Vyayamshala. The members of this Vyayamshala are sent up for district athletic competitions, Gujarat Olympic games and even to the Bombay State Athletic Competitions. The Vyayamshala takes a lively interest in the athletic activities of the district. It has got its own premises and the building and estate cost about Rs. 30,000. It has about Rs. 1,000/- as funds invested elsewhere. The Vyayamshala is managed by a managing committee consisting of 12 members. The committee has as its members some of the leading men of Broach city.

Broach District Rifle Association, Broach and City Rifle Club, Broach.

Rifle training is a unique feature of the activities of this district and Broach district probably is the first district in Gujarat to take up this matter so seriously. In the year 1952, the Broach District Rifle Association was formed with a view to enthusing and teaching the people about the use of rifles and other weapons. The association has a membership of about 80 persons drawn from almost all talukas of the district. The Collector and District Magistrate happens to be its chairman and the managing committee consists of 9 members. The Association conducts small rifle training classes and teaches the use of rifles and other firearms to members of public during their spare hours. The Association has branches at Raipipla, Wagra and Amod where rifle training is imparted. In Broach city, Broach City Rifle Club, which was established in the same year i.e., 1952, conducts Rifle training classes during the summer vacation. The training is given during early hours of morning in Broach City Police lines (Soneri Mahal) and the trainees have to pay fees of Rs. 2 only. Membership of the Rifle Club is open to all citizens of Broach city above the age of 18. There are 50 members receiving training in the club. Though the club works under the general supervision of the Broach District Rifle Association, its day to day affairs are managed by an Executive Committee consisting of 9 members. Two more branches are attached to this club, viz., (1) Home Guards Rifle

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Club, Broach, and (2) Shri Chhotubhai Purani Vyayam Mahavidyalaya Rifle Club, Rajpipla.

Hanuman Vyayamshala Ankleshwar

At Ankleshwar, there is a well known gymnasium, Hanuman Vyayamshala, which is open to all persons free of charge. Hanuman Vyayamshala was established at Ankleshwar to provide facilities of physical exercises, games, and athletics to the residents of the Ankleshwar town. In addition to general exercises and athletics provided at the gymnasium, the Vyayamshala conducts swimming classes for children between 6 and 15 years of age. The Hanuman Vyayamshala has been doing valuable relief work during the periods of famines, floods, fires and such other calamities.

Vijay Maternity Home, Rajpipla.

At Rajpipla, a trust was formed in June 1948 to start a maternity home with a view to render medical aid to women irrespective of their caste, creed and religion during and after confinement. The Vijay Maternity Home was started in the month of January 1954 in a modern and spacious building of the trust. It is equipped with modern apparatuses, and has a qualified staff. It has 20 beds for indoor patients and an outpatient department also. The Home provides facilities required for safe delivery and also undertakes medical examination of women, whether before or after pregnancy. It also distributes medicine. The Home has so far treated 90 indoor patients, 300 outdoor patients and 250 children.

The Home conducts a child welfare centre which is run by the Broach District Red Cross Society. In this centre, children are regularly examined by expert doctors and necessary advice about treatment is given. Milk powder and calcium tablets are distributed free to weak and deserving children.

This institution is managed by a Board of Trustees which consists of seven members. It is their desire to convert this Board into a Medical Aid Society.

Rajpipla Stree Udyogalaya, Rajpipla.

With a view to teach some useful crafts to women of Rajpipla, Shree Rajpipla Stree Udyogalaya was established at Rajpipla in November, 1940. It was started with a very small amount of money. In this Udyogalaya, women are taught sewing, knitting, and other useful domestic handicrafts. When women bring clothes for stitching half of the sewing charges are given to the Udyogalaya. *Papad* (Savoury Wafers), spices, pickles, mattresses for children and other things which are prepared in the institution during the training period are sold to outside customers, and this brings some income to the institution. It has got a very small fund of Rs. 250 only but with the willing cooperation of the women and others concerned, the Udyogalaya has been able to sustain itself for fifteen years. The Udyogalaya is managed by a Committee of seven persons.

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All India Women's Conference, Broach Branch.

For the moral and material uplift of the women and children of Broach, a branch of the All-India Women's Conference was started in the city in the year 1938, and since then it has been rendering valuable work in the field of social service. The branch arranges frequent meetings of its women members and lectures on instructive topics useful to women and often public lectures of eminent personalities are arranged under its auspices. It also conducts short courses in nursing, midwifery, sewing, knitting, embroidery, Hindi etc., for the benefit of its members. A montessori school, Balmandir, is run by the institutiion. After 1955 the branch started 13 play centres for children and free milk distribution scheme has begun to operate for them. Children are given education by modern methods and instruments and the school has a well trained staff. Not only this, the Broach Branch of the Conference was greatly instrumental in getting Broach to be a centre for matriculation examination and it makes arrangements for examiners coming to Broach for taking the examination. The members of the Conference take keen interest in children, public health and sanitation problems of the Broach industrial areas. Residential premises at Broach for industrial workers were renovated at their instance and so were started the creches in various factories at Broach for the benefit of children of women workers. Members of this conference give a helping hand in days of famines, floods, natural calamities and other accidents. They arrange for supply of food, medicines, clothes and other necessities and even render physical help by personally attending to the victims. Recently, the Broach Branch of the All India Women's Conference has been showing a great interest in the Community Development and other social welfare activities and have also taken the agency of the National Savings Certificate scheme in order to give fillip to "Small Savings Drive" sponsored by the Government in the district. It was at their instance that a branch of the All India Conference of Social Work has been started at Broach and proposals are afoot to set-up a Broach District Social Welfare Board, for carrying out a number of schemes connected with social and welfare activities. Members of the branch have been helping the officials of the Community Development Block of Valia-Jhagadia taluka in enlightening the rural women folk about the cultural advancement and also in educating them. The Broach Branch also arranges cultural programmes such as dramas, musical ballets, dance ballets etc., each item depicting some instructive topic and incidentally raising funds for their multifarious activities. It is not posssible to mention all the activities of the Broach Branch and we have to suffice by mentioning a few of them only.

The membership of the Conference is open to all adult women on payment of three categories of an annual fee of annas 4, or rupee 1, or Rs. 2. There are about 500 members of the Branch. The Managing Committee, consisting of 19 members, is every year elected by the general body by distributive voting method. For specific work

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of the conference, the Managing Committee may select an Executive Committee consisting of office-bearers and two members of the Managing Committee. The Broach Branch of the All India Women's Conference is represented by its elected members at the sessions of the All India Women's Conference and the Gujarat Provincial Women's Conference.

Seva Sadan.

At Shuklatirth, a village about 8 miles from Broach city, there is a social service institution by name Seva Sadan. It was established in the year 1940 with a view to render selfless service to humanity by providing medical aid and maternity facilities to the residents of the village of Shuklatirth and area round about. Though the organisation was started in 1940, actual work started only in the year 1947 when a spacious building was constructed on the banks of the river Narmada to house the hospital and the maternity home. With a band of selfless workers, Seva Sadan has been rendering useful service not only to the residents of Shuklatirth but also to those of the neighbouring villages of Mangaleshwar, Nikora, Karjan, Kavitha, Karmali, Angareshwar etc. Seva Sadan is equipped with a qualified staff and modern equipment. Its outdoor department treats a large number of patients but due to illiteracy and inadequate knowledge of modern conditions among the rural people, the indoor department has taken time to be widely popular. About 60% of the patients are treated free of charge and the rest, who can pay, are charged a nominal charge per day ranging between four and six annas. The institution also conducts a child welfare centre where children are carefully examined, and medicines and milk are provided to them free of charge.

Seva Sadan, apart from some amounts received by way of medicine charges, has to depend more or less on donations for its day to day expenses. It has been noticed that cash and kind donations are very readily forthcoming not only from Broach City but also from neighbouring villages and distant places like Bombay, Ahmedabad, Baroda etc. In addition, there is one class of membership open to the public and that is life membership by donating a sum of Rs. 100 or more. There are 26 such life members of the Seva Sadan. It is managed by a Board of Trustees and an Executive Committee. The Board of Trustees consists of 16 members. The Broach District Local Board gives a grant in aid towards the maintenance of nurses and midwives in the hospital.

Sevashram, Broach.

Sevashram in Broach City is one of the most prominent social service institution not only of Broach district but in the whole of Gujarat. In the twenties of this century, Broach district was ill-equipped with medical facilities and a few enthusiastic workers of the district conceived the idea of starting a sevashram with a view to render medical and other allied help to the public. The district stood in need of medical relief as a large section of its population had not the means to go elsewhere for treatment.

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In 1920, a small beginning was made. A dental clinic was started in a small hired building in the city and patients were treated without distinction of caste or creed and without any insistence on payment of fees. This dental clinic soon acquired considerable popularity and patients from all over the district as also from other districts of Gujarat came in large numbers to utilise the facilities. It was realised that the hired building was very small to accomodate all the patients and the necessity was realised of a full fledged hospital with necessary facilities for the treatment of all types of medical and surgical cases, and in 1926 the foundation of Sevashram building was laid.

The construction of the dental hospital building was completed in 1926 and the dental clinic was shifted to the new building immediately thereafter. The construction of the general hospital building was started in the year 1929 but on account of a number of difficulties, the building could be completed only in 1939.

Sevashram has proved to be a boon to suffering humanity and patients from all over the district as well as the neighbouring areas take advantage of it. The hospital has an outpatient department, in-patient department, maternity department and a dental department. It it equipped with modern equipment and has an experienced band of doctors who work in an honorary capacity. Nearly 60% of the patients in the hospital receive free treatment and particularly poor patients are never refused admission. Facilities are also provided for those who do not desire to receive free treatment but the charges recovered from them are perhaps the lowest in Gujarat. In the year 1955-56, 27317 patients were given treatment at the out patient department of the Sevashram, 1983 were treated as in-patients, 624 cases were treated in the maternity ward, and 4344 cases were treated in the Dental Clinic. At the hospital, 944 patients were operated upon for various diseases. Sevashram also takes a very keen interest in various social and relief activities of the district such as famine relief, flood relief, emancipation of the backward and depressed classes etc.

The expenses of Ashram are met by munificent donations from the district and outside. The building of the hospital cost Rs. 7 lacs and the expenditure was met by donations collected at Bombay. The day to day activities of the institution are managed by a Board of Trustees consisting of 4 members.

Indian Red Cross Society, Broach Branch.

The Indian Red Cross Society, Broach Branch, was established in the year 1925. Its objects are (i) promotion of health (ii) prevention of diseases, (iii) supply of comforts to patients, (iv) provision of better facilities to patients in smaller hospitals and (v) maintenance of friendly relations with national and international Red Cross Organisations. The general object of all Red Cross Organisations is to give succour to suffering humanity during war, famine, and other calamities irrespective of religion or nationality.

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The society has members who pay annual subscriptions or a donation in lumpsum entitling them to the privileges of membership. The Collector, Civil Surgeon, President of the District Local Board, Chief Officer and the Health officer of the Broach Borough Municipality are ex-officio members of the Broach Branch of the Indian Red Cross Society.

Indian Red Cross Society, Broach Branch.

The Society receives an annual grant from the Bombay State Branch of the Indian Red Cross Society and annual recurring grant from the Bombay Government, and some commercial houses of Bombay. Occasionally, the society gets munificent donations from M/s. Vakharia Brothers of Broach and Sir Dorab Tata Trust of Bombay.

Besides the supply of comforts to patients in civil as well as military hospitals, and contribution to small hospitals towards their expenses on account of salary of nurses and cost of equipment, the society runs a centre for the use of nursing articles such as thermometres, etc., conducts village medical aid centres. bi-weekly dispensaries, touring dispensaries, and table dispensaries in various villages of the district. The society manages child welfare centres at Broach, Ankleshwar, Jhagadia and Shuklatirth where children are medically examined and necessary medicines are issued to them. It distributes skimmed milk powder to the weak and deserving children. The Broach branch of the society also does the work of St. Johns Ambulance and B. C. G. Vaccination. It organises health exhibitions and children's rallies, elocution and poster competition on topics relating to health, and Red Cross weeks when special health programmes are carried out by the society. For the benefit of the public, school children and women of Broach, the society arranges magic lantern lectures and cinema shows on a large variety of items connected with health, prevention of diseases, sanitation, personal hygiene etc. The society, every year, organises excellent cultural programmes and the receipts of such programmes are taken over to the funds of the society for carrying out their benevolent activities.

In 1956 November, it celebrated the Red Cross Week and a variety of programmes including 34 cinema shows were arranged at different places in the district. Moreover, a health exhibition was held in March, 1956 at Haldar (Taluka Broach) during the Baby and Health Week Celebrations and World Health Day programme was also held under its auspices during the year.

The society has its owned building in the Broach city and also has a fund of Rs. 15,500 invested in Government securities. It is managed by a Committee of 35 members of which the District Collector is ex-officio President and the Civil Surgeon a vice President.

Broach Sanitary Association, Broach.

Closely allied to the activities of the Indian Red Cross Society, is the work which is being done by the Broach Sanitary Association, Broach. The Association was established in the year 1914 for carrying out programmes of public health, social hygiene, medical aid and

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also to impart secular education. Its membership is open to donors paying Rs. 500/- or more, life members paying Rs. 25 or more and annual membership by paying Re. 1 per year. There are 146 members of the Association. It is housed in its own building known as J. D. Vakil Sanitary Hall.

The Association does propaganda work by arranging magic lantern lectures, cinema shows, public lectures etc., on topics relating to public health. It conducts first aid and Red Cross training classes for the benefit of local educational institutions and local bodies. The Association organizes every year health exhibition, Health days, Baby shows, Baby and Healh shows, World Health Organisation day etc. It also conducts elocution competitions and poster contests. An Inter-school cricket shield tournament is run by the Sanitary Association. It also carries out the B. C. G. Vaccination scheme.

The J. D. Vakil Sanitary Museum Hall is maintained by the Association for the benefit of students, physical education teachers, trainees of first aid and Nursing and even members of the medical profession. The Museum contains an excellent collection of models, posters, pathological specimens, charts, cinema films, books and literature connected with hygiene, public health and medicine. A good number of visitors take advantage of the Hall. The museum Hall also locates the office of the Broach sanitary Association.

The Association is managed by an Executive Committee of 34 members of which 14 are elected and the rest nominated by the local bodies and other allied institutions. The association has good funds, Rs. 29,900 invested in public securities and Rs. 5,460 as other investments.

Bhrigupur Hindu Anathashram, Broach.

The Bhrigupur Hindu Anathashram was started in Broach city in the year 1907 with a view to provide educational facilities, food, clothing and shelter to orphan children of Broach district and the areas round about. This Anathashram has a building of its own located in the Dandia bazar in the Broach town and has accommodation for about 20 boys. Those boys are given free food and clothing and they are provided with educational facilities in the local schools. They are also taught some useful crafts so that they can earn their livelihood in their after life. The Anathashram helps the outgoing boys in starting some business on small scale and also in getting them suitable jobs. The building of the Anathashram has been got in donation. The expenses of the Anathashram are met by donations of cash, and kind like food articles, cereals and pulses and clothes. It has a fund of Rs. 17,000 invested in shares and the interest on it is spent towards the expenditure of the Ashram. The Anathashram is managed by a committee of 7 persons and the day to day activities of the Ashram are looked after by a superintendent.

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Seva Kutir, Sunev Khund.

Run on the principle of sarvodaya, the seva kutir was established in the year 1949 at village Sunev Khund with a view to promote village industries and to achieve self-sufficiency in cloth. This institution is run by three social workers who have devoted their lives to Sarvodaya work - one of them being a lady. Seva Kutir imparts training in spinning, weaving and allied crafts. It conducts educational classes based on the Nai Talim system of Wardha. It runs a dispensary in the village and also imparts training in health and hygiene.

Rajpipla Vibhag Satyadham Sarvodaya Sangh, Rampura.

Another institution based on the Sarvodaya principle is the Rajpipla Vibhag Satyadham Sarvodaya Sangh established in the year 1951 and its headquarters being Rampura, a village in the Nandod taluka of the district. The chief object of this Sangh is to render public service without any desire of reward or gain and to raise the moral character of the people of the Rajpipla sub-division by constructive work in the rural areas. The institution is open to all who believe in Sarvodaya, and who could do some work in the field.

The institution's activities are limited to the *adiwasi* (aboriginal) population of Nandod taluka. The Sangh conducts two health centres, two primary schools and imparts social education and training in *charkha* (spinning wheel). It also conducts a *Taluka Khedut Mandal* (Taluka Cultivators Association) through which it propagates improved methods of agriculture, prohibition, co-operative enterprise, settlement of disputes by arbitration, fair play in agricultural trade and compulsory savings schemes etc. The sangha has two *ashramas* one at Rampura, and the other at Dekai village and through these ashramas, it tackles regional problems. These *ashramas* celebarate all national festivals, do relief work during days of natural calamities, conduct a library, and, also conduct cultural and prayer meeting. The sangha is striving hard towards the moral and cultural uplift of the adiwasi population and the institution is above party politics. It has no regular income and no funds with the result that sometimes the progress of its work is hampered.

Indian Conference of Social Work, Branch District Branch.

Indian Conference of Social Work established a branch at Broach in the year 1949.. The chief objects of this Social Service Institution are to carry out various social welfare programmes in the district, to look after women and children welfare and to conduct montessorie classes for children. Its membership consists of 10 individual members and 8 member institutions. The Collector and the District Magistrate is the president of the branch. It arranges public lectures and conferences to explain the importance of social welfare work and to create public opinion for it. In 1950 a representative of the Broach branch went to attend the International Conference at Paris. Recently, the Branch has selected a block of 20 villages of Broach taluka and wish to carry out there schemes of women and children welfare along with other development work. And for this purpose,

they will be utilising the grant that has been received from the Indian Conference of social work. Details of this plan are being worked out.

The Branch celebrates every year a social welfare day, children's day and also conducts scout service, fancy dress show and dancing and similar other cultural activities.

Sarvajanik Harijan Chattralaya, Broach.

The Gujarat Harijan Sevak Sangh is running a Sarvajanik Harijan Chhattralaya at Broach, which provides free boarding and lodging facilities to students belonging to Harijan and other backward communities of Broach district. This Chhattralaya was established in the year 1936 and is housed in a very small building which is owned by the Sangh. The present hostel, which is located in the Vaijalpur area, has accomodation for about 35 to 40 boys; but the pressure on this chhattralaya is so great that a new building is being constructed, just opposite Sevashram building, with the help of Government grant. The chhattralaya receives an annual grant from the Government of Bombay. Though the overall supervision over the institution is done by a Board of Trustees appointed by the Gujarat Harijan Sevak Sangh, its day to day activities are looked after by a manager.

Adiwasi Kumar Ashram, Valia.

Shree Adiwasi Kumar Ashram, run under the auspices of Shree Bhil Seva Mandal, Dohad, was started in the year 1951 with a view to help aboriginal and Harijan students for their education. The Ashram provides free boarding and lodging, to Harijan and *adiwasi* students. It has so far provided such facilities to 114 students. The Ashram is managed by a superintendent.

Adiwasi Seva Sangh, Rajpipla.

Adiwasi Seva Sangh, Rajpipla, is an important institution connected with the work of uplift of aboriginal classes of the Broach district. It was established in the year 1949 with a view to bring about social, economic, political, and educational development amoung the *adiwasi* population of the Rajpipla Sub-division of the district consisting of Jhagadia, Dediapada, Nandod talukas and Valia and Sagbara mahals. There are 4597 members of the Adiwasi Seva sangh.

The sangh conducts adult education schools for the benefit of backward classes. It has given encouragement to the cooperative movement in the district by organising Forest Societies and Forest Labourers' Societies in this area. It arranges public lectures and propaganda among the backward classes about tenancy, Agricultural and Debt legislation and also about prohibition. Adiwasi Seva Sangh has been rendering a helping hand to Government in their activities in the Valia—Jhagadia Community Development Block.

Besides, the Sangh manages four *ashrams*—*Adiwasi Kumar Ashram* and *Adiwasi Kanya Ashram* (Boarding Houses for Adiwasi Boys and girls respectively) which are run at Rajpipla by the Bhil Seva Mandal, Dohad, and two *Adiwasi Kumar Ashrams*, one at Jhagadia and another at Valia.

CHAPTER 19.
—
Voluntary Social Service Organisations.

The Sangh was registered in March, 1957 and since then the management by the Bhil Seva Mandal, Dohad, have ceased. It is now known as "Broach Jilla Adivasi Seva Sangh."

REMAND HOMES.

REMAND HOMES.

Broach Jilla Probation and After Care Association was established in March 1945 and from the same date 'Remand Home' for boys and girls who are delinquents was started at Broach. In 1949 similar Remand Homes were started in Jambusar and Rajpipla. These institutions are managed by officials and non-officials and persons interested in public work.

The Probation Officers of these institutions keep a watch on the behaviour and activities of the inmates and record of the same is maintained and presented before the Juvenile Court. This Court is interested in reforming the juveniles and securing a better future for them.

The daily routine of the Remand Home is arranged to suit the habits and inclinations of children and to inculcate in them a sense of discipline. They are trained in physical training, social education, gardening, spinning and weaving, cultural activities and small occupations. Training is imparted to girls in home science, and sewing, knitting etc.

The main object of the Remand Home is to check the criminal tendencies in juveniles and to reform them and prepare them to become good citizens. The work of the institution is not to punish the guilty children but to diagnose their evil tendencies and to treat them humanely and sympathetically with a view to bringing them back to normality. With this end in view, all the activities of the institution are arranged.

In 1955-56 there were 131 children who included six girls in the Remand Home. There were three handlooms in the institution from which the necessary cloth for various purposes was produced. The inmates also undertake farming during monsoon. There were seven students studying in the primary school whose expenses for education were borne by the institution. In 1955-56 three students were trained in Carpentry. During the same year financial assistance of Rs. 1500 was given to the Remand Home for girls by the Central Social Welfare Board and the Remand Home for boys also received Rs. 2300 from the same body.

Average attendence at the Remand Home at Jambusar was 50. Out of 54 boys in the year 1956, 5 were studying in High School.

Rajpipla Remand Home commenced its activities from 1949. During 1955-56, 45 juveniles were admitted of whom six were girls and cases of 48 juveniles were treated and disposed of. The institution received grant-in-aid totalling Rs. 10,209 from various institutions.

PART VI

CHAPTER 20—PLACES OF INTEREST

CHAPTER 20.

Places.

AMOD.

ĀMOD (21° 59′ N. 72° 54′ E; P. 7,833), the headquarters of the Āmod peṭa, is situated about a mile to the south of the Dhāḍhar river, twentyfour miles north of Broach, and thirty miles south-west of Baroḍā. It is a railway station on the Broach-Jambusar line of the Western Railway. The town was originally surrounded by a wall which has entirely disappeared. Āmod is a place of but little trade, chiefly in cotton. There are workers in iron, who make good-edged tools, such as knives and razors. It has a District Local Board Travellers' Bungalow. The civic affairs of Āmod are managed by a panchāyat.

ANGARESHWAR.

Aṅgāreswar Broach T.; (21° 45′ N, 73° 05′ E; p. 835), a village on the Narmadā river about 16 miles to the north-east of Broach town, is the centre of a lift irrigation scheme started in May 1951. Water is to be lifted from the Narmadā to a height of 80 feet by means of powerful engines and pumps to irrigate about 2,000 acres of fertile land. The total estimated capital cost of the whole scheme was Rs. 2,82,283. The working expenditure in 1953-54 amounted to Rs. 40,370. The actual area irrigated by the scheme in the same year was 448 acres.

ANKLESWAR.

Aṅkleshwar (21° 35′ N, 72° 55′ E; a· 1·2 sq. miles; p. 15,275), the headquarters of the Aṅkleswar taluka, is on the Bombay-Delhi section of the Western Railway, about six miles south of Broach. Connected with Hānsoṭ, twelve miles to the west and provided with a road running for nine miles eastward towards Nāndod in Rājpīplā, Aṅkleswar has become the chief mart of a considerable area of country. By this route timber, firewood, bamboos for building purposes, wax, honey, hides, drugs and jungle produce find their way to the Aṅkleswar market and railway station, and piecegoods, metals, hardware, salt and other necessaries of life, reach Nāndod. Cotton is the staple article of trade. There are a number of ginning factories in the town, but only one of them is working 1955. There is also a timber trade, in rafters and bamboos brought from the Rājpīplā forests and a small manufacture of country-soap, paper and stone hand-mills. There are about 500 handlooms and a Hand-loom Weavers' Association to help this handicraft.

According to the 1951 census, the agricultural population in the numbered 1,562 persons; and non-agricultural classes 13,713 persons. Of the latter 2,632 derived their principal means of livelihood from

CHAPTER 20. Places. ANKLESHWAR.

production other than cultivation; 3,856 from commerce; 632 from Transport; and 6,593 from other services and miscellaneous sources.

The Aṅkleśwar municipality was established in the year 1882, and it is governed by the Bombay District Municipal Act, 1901. The municipal council is composed of 16 members elected from among four wards, Three of the seats are reserved for Scheduled Castes and Tribes (one in ward No. I for Scheduled Castes and two in ward No. IV for Scheduled Tribes) and two seats are reserved for women in ward Nos. II and III. The rest eleven are general seats. In 1952-53 the municipality had a total income of Rs 2,00,511, (excluding Extra-ordinary and Debt heads), of which octroi contributed Rs. 78,399; property tax Rs. 7,708; taxes on animals and vehicles Rs. 1,555; tax on professions and trades, Rs. 2,533; tolls Rs. 7,311; conservancy tax Rs. 3,020; revenue derived from municipal property and powers apart from taxation Rs. 38,950; grants and contributions Rs. 53,707; and miscellaneous Rs. 7,328. The total expenditure (excluding Extra-ordinary and Debt heads) was Rs. 1,97,909; general administration and collection charges absorbing Rs. 32,456; public safety Rs. 13,578; public health and convenience Rs. 87,582; public instruction Rs. 61,363 and miscellaneous Rs. 2,930.

In 1952 there were 4,400 houses in the town whose capital value was estimated at Rs. 18,06,154. There is no water works for supply of water to the town, and the residents have to depend on private wells. There is also no drainage system. Lighting of the streets is done by means of kerosene oil lamps and petromax lamps. Primary education under the compulsory scheme is managed by the District School Board, the municipality contributing its statutory quota. The municipality maintains a high school with a strength of 25 teachers and 450 pupils and the school is almost self-supporting. There are a municipal dispensary and maternity home in the town. The Broach District Local Board pays a contribution to the municipality towards the maintenance of the dispensary. The District Local Board maintains a veterinary dispensary in the town for which the municipality pays a contribution to it. There are two hand-worked fire-fighting machines maintained by the municipality for putting of fires in times of emergency. One cremation ground and five burial places are located in the town. There are a public park and two libraries maintained by the municipality.

The American Mission runs a training College in Aṅkleśwar. There are now (1955) 6 teachers and 72 trainees. A practising school is attached to this college, which has a strength of 8 lecturers and 225 students. The mission runs also a carpentry workshop which runs a three years' course of education in carpentry and sends up students for the examination in carpentry conducted by the Board of Technical Education. A poultry farm is also maintained by the mission, where pure-bred fowls are reared.

BAVAPIR.

Bāvāpir (Nandod T.), a pass in the Rājpīplā hills, takes its name from a celebrated Mohammadan saint buried there about 900 years

ago. It is located near village Pādar in the Nāndod taluka at a distance of five and a half miles to the south of Rājpīplā railway station. CHAPTER 20. Places.

BHADBHUT.

Bhāḍbhut (Broach T.; p. 1,625), is a place of Hindu pilgrimage on the north bank of the Narmadā, about eight miles from Broach (21° 40′ N, 72° 55′ E). A fair in honour of Mahādev, under the name of Bhāḍeswar, takes place when Bhādarvo (August-September) is the intercalary month, an event that happens once in every nineteen or twenty years. The ceremonies continue throughout the entire intercalary month. Few pilgrims, come before the *agiāras* (11th day); during the next five days, or till the full moon, there is a steady increase, the numbers ranging from ten to twelve thousands on the 11th day to fifty or sixty thousand on the full moon day. There is then a falling off; but on *amās*, the last day of the holy month, large numbers again flock in. The ceremonies at Bhāḍbhut are special. They do not form part of a course of pilgrimages, and after the holy month comes to an end, the visitors return to their homes. During the time of the fair the pilgrims live partly in the houses of the villagers, and partly in tents and temporary sheds. The water is drawn from the Narmadā, and the supply is sufficient. There is a temple at Bhāḍbhut, the ante-chamber of which is 11½ ft. square; and the inner room, entered through a door 5 ft. high and 2½ ft. wide, is 11 ft. by 10½ ft. The temple receives a yearly grant from Government of Rs. 9.

BROACH. Situation.

*Broach** [21° 40′ N, 72° 55′ E; *a.* 3.10 square miles; p. 62,729 (m. 32,574; f. 30,155)], the headquarters of the Broach district, is an ancient port of hoary antiquity in the north bank of the Narmadā, the greatest of the Gujarāt rivers. The town is built on the top and slopes of hillock rising from the river bank, and, with its suburbs, covers a strip of land about three miles in length and three quarters of a mile broad. A massive wall of stone lines the river bank from east to west for about a mile, and there is a line of ruined fortifications passing up the sides and encircling the top of the hill. From the high ground in the front on every side stretches a wide open plain. Close at hand, to the south, the Narmadā, nearly a mile across, and broadening as it grows more distant, passes westwards to the sea. To the west the groves of the well-wooded suburb of Vejalpur, and northwards a group of two hills relieve the line of the level plain.

Broach is on the main line of the Western Railway from Bombay to Delhi and is linked to Chotta Udaipur by a separate railway line running *via* Jaṁbusar. In recent years the town has extended to a certain extent on the west from Sāt Līmdī to Kukerwāḍā; on the north from the Broach railway station to the railway godowns of the Broach-Jaṁbusar line; and on the east from the railway station to Maktompurā-Mahāmudra road.

Climate and Rainfall.

Broach has a dry and healthy climate, as it is situated miles away from the sea. The minimum temperature in winter months (Jan.-Feb.)

* See also "Port of Broach" under Chapter 9 Transport and Communications.

CHAPTER 20. Places. BROACH.

sometimes goes down to 40°F., and the maximum in summer (April-May) sometimes rises above 114° F. June to September are the rainy months, and the average annual rainfall reckoned over the past 63 years is 36.71 inches.

Old Streets.

For administrative purposes the city is divided into six wards A.B.C.D.E-1 and E-2 and for election purposes it is divided into seven wards. Most of the streets of Broach have names of historical origin.

Ward A—

Burānpur is one of the oldest streets known after one saint Sayyid Burhan-ud-Din Nagmian, who flourished in the 18th century. The saint's tomb is situated in the locality near the station.

Majampur is named after one Moāzzam Khān, Governor of Broach in the 16th century His tomb is situated beyond the railway station.

Mogalpura is on the north of the railway station. It was founded in the beginning of the 18th century by Mirzā Mughal Beg, the brother of the last Nawāb of Broach, Mirzzā Moāzziz Khān.

Chiṅgaspurā is near the Ratan Taḷāv, named after Chaṅgiz Khān (Jāgirdār of Broach and Surat), Amir of Sultān Mahmud III, who exercised power as the Sultan (1560-67). Chaṅgiz Pole in Ahmedābād and the Chaṅgīzī coins current in the whole of Gujarāt from the 16th to the 18th centuries have his name.

Ward B—

Guliār wāḍ is a street connecting the Kansārwāḍ and Lāl Bazār and is known after the dealers of calico who inhabited the street. The dealers had big earthen pots *(kooṇḍs)* in the street, were calico was prepared.

Ināytwād (corruption of Nawāytā Wāḍ) is named from Nawāytās (new comers) who came and settled here during the Mohammadan period from the 14th to the beginning of the 18th century. The Nawāytās were foreigners from Baghdād who had migrated from Bhagdad due to the oppression of Hajjaj bin Yusuf, the then Governor of Baghdād.

Wards B and C—

Hājikhānā Bazār is known after one Hāji Khān of Broach who is buried here in the compound of the Masjid known after him. He was the Amir of the Gujarāt Sultanat, Aṅkleswar Kasbā being his fief.

Lallubhāi Caklā is named after Lallubhāi, the ex-Diwan of the last Nawāb Mirzā Moāzziz Khān of Broach (1768-72 A. D.)

Ward C—

Nakarśeṭh Khaḍki is si named after Nagar Śeṭh of Broach who inhabited the street. It is near Nava Dehrā.

Hājī Pīr Kīrmani is named after one saint known as Hājī Pīr of Kirman. He is buried in the compound of the mosque known after him.

Hājī Pīr Kīrmanī Ovārā (road leading to the river ghāt) is known after the saint.

Madresā Street, near the Begam Badi, is known after the Pārsi, Zand and Persian Madresā, a State institution which imparted free education to Pārsi students during the Broach Nawābs, rule (1736-72 A.D.).

Kajaṁbar is a street near the Jumā Masjid of Broach and is named after one Munshi Kāzam, a Deputy to the Kāzi of Broach in the 17th century. At present it is mostly inhabited by Pārsis.

Hakīmjī Galī is named after one Hakīm Ruhullā of Broach who inhabited the locality. He was the State *hakīm* during the time of the Mughal emperors Akbar, Jehāṅgir and Shāh Jahān. He was a Jāgīrdār of Broach, the village of Thām and other villages having been awarded to him and his family by Jehāngir for his meritorious services.

Ward D—

Rothfeld Street is a street named after the late Otto Rothfeld, Collector of Broach, who had taken part in the development of Broach from 1909-12.

Ward E—

Isākpurā is named after the saint Maulānā Ishāq, a great Arabic scholar and saint of Broach. He flourished in the beginning of the 17th century A.D. It is on the road to Idgāh Maidān.

Mahomedpurā is named after the son of Māulānā Mahomed, the son of Maulānā Ishāq, who had founded the street in his life in the 17th century A.D. It is near Nāgori Wāḍ.

Kānugāwāḍ is named after the Qanoon Gos of Broach. They inhabited the place. The Qanoon Gos were State servants during the Mohammedān period (16th to 18th centuries) in the Customs and Mint Departments.

Wards.

The names of the wards in the ex-suburban municipal area with the rateable value of the properties situated in them as in the year 1949/50 are given below :

CHAPTER 20.

Places.
BROACH.
Wards.

Ward.	No. of properties.	Rateable capital value Rs.
A	1,403	95,77,610
B	1,983	1,22,86,259
C	1,847	98,26,120
D	1,784	1,03,35,393
E/1	1,531	72,28,444
E/2	1,542	76,47,162
Total :	10,090	5,69,00,988

Population.

According to their livelihood the population (62,729) was distributed as under :

Agricultural Classes	*Males.*	*Females.*
Cultivators, cultivating labourers, and their dependants.	757	739
Non-cultivating owners of land, agricultural rent receivers and their dependants.	321	328
Non-agricultural classes (persons including dependants, who derive their principal means of livelihood from) --		
Production other than cultivation.	9,755	8,999
Commerce.	7,745	7,330
Transport.	2,092	1,362
Other services and miscellaneous sources.	11,904	11,397
Total .	32,574	30,155

The report of the census of 1951 has not published separate figures regarding the division of the people of Broach town by language and religion. These figures are given for the urban areas of Broach and Nāndod talukas combined, the total population of these areas being 80,149 as compared to the total for Broach town of 62,729. The combined figures regarding languages are : Gujarātī 65,597 ; Urdu 12,002 ; Marāṭhī 1,173 ; Hindi 570 ; Sindhi 555 ; Rājasthānī 46 ; Kachchī 56 ; Puñjābī 22 ; Kannaḍa 21 ; Tamiḷ 31 ; Hindustānī 46 ; Portuguese 32; Telgu 8 ; Pushto 2 ; Konkanī 2 , Burmese 4 ; Bengālī 3 ; Maḷayālam 4 ; Naipālī 1 ; Turkish 1. The combined figures for religions are : Hindus 57,103 ; Muslims 20,313 ; Jains 919 ; Sīkhs 76 ; Zoroastrians 1,031 ; Christians 645 ; Jew 1 ; other religious (Non-tribal) 60.

Broach Municipal Borough.

The civic affairs of Broach are now managed by the Broach Borough Municipality. The Municipality of Broach first came into existence in 1851 on 6th September under Act XXVI of 1851. It

became a borough municipality in 1926. The present number of councillors is 30. Three of the seats are reserved for women. One seat is to rotate in electoral wards I, II, and III, the second in wards IV and V, and the third in wards VI and VII. Two seats are reserved for the Scheduled Castes, one each in wards I and II and one seat is reserved for Scheduled Tribes in ward III.

The Standing Committee is the only Statutory Committee appointed under section 37 of the Bombay Municipal Boroughs Act (XVIII) of 1925. The Committee exercises the powers and performs the duties given to it under the various provisions of the Act. The municipality appoints other executive committees under section 38 of the Act, viz., (1) Sanitary Committee; (2) Public Works Committee; (3) Finance and Taxation Committee; (4) Lighting Committee, and (5) Water Works Committee.

The first general election under adult suffrage was held in July 1952. The percentage of voters who exercised their votes was 62.

The Chief Officer is a statutory officer who is the chief executive head of the municipality. The Sanitary Department is under the Health Officer and the Public Works Department under an Engineer. There are also an Accountant and an Auditor.

Revenue and Expenditure.

The revenues of the municipal borough in 1954-55 totalled Rs. 15,02,468 and were composed as follows :—

		Rs.
(A) Municipal Rates and Taxes :		
(1) Terminal Tax	...	4,11,815
(2) House Tax	.	2,38,104
(3) Wheel Tax	...	30,491
(4) Toll Tax	...	9,755
(5) General Sanitary Cess	..	80,386
(6) Special Educational Tax	.	87,067
(7) Lighting Tax	...	43,576
(8) Entertainment Tax	...	8,470
(B) Realisation under special Acts	..	727
(C) Revenue from properties etc.		
(1) Market and slaughter house	...	36,591
(2) Others	...	55,581
(D) Grants and Contributions	...	1,80,973
(E) Miscellaneous	...	3,18,932
Total	...	15,02,468

CHAPTER 20.

Places.
BROACH.
Revenue and Expenditure.

Expenditure in the same year totalled Rs. 13,09,919 and was composed of—

		Rs.
(A) General Administration and Collection charges :		
(1) General Administration	...	51,868
(2) Collection Charges	...	55,801
(3) Others	...	49,963
(B) Public Safety :		
(1) Fire Fighting	...	28,658
(2) Lighting	..	37,767
(C) Public Health and Convenience		
(1) Public Health		
(a) Conservancy	..	3,48,848
(b) Dispensaries	.	53,349
(c) Market and Slaughter House	..	1,276
(d) Gardens	..	9,470
(2) Public Convenience	.	1,99,697
(D) Public Instruction		2,57,309
(E) Contributions	...	5,000
(F) Miscellaneous	.	2,10,913
Total	..	13,09,919

Municipal Works.

There is no regular water works supply scheme in the town and there is also no regular drainage works scheme. The municipality has constructed 10 boring works, from which water is supplied to the public at stand posts. Wherever possible, connections in private houses are also given. At present (1954) 621 such connections are given.

The regular water supply and drainage schemes estimated to cost Rs. 64,53,317 and Rs. 51,79,918 respectively have already been sanctioned. The municipality has left the execution of these schemes to the Government of Bombay. The Government has opened a special Sub-Division for these works at Broach and the Division has started work in June, 1955. The municipality will get one-third of the estimated cost as grant-in-aid from the State government. The balance, viz., two-thirds, will be raised by loan. The Union Government has offered a loan to the municipality to cover the cost of both these schemes.

Markets.

There are one vegetable market, one non-vegetable market, and one separate beef market in the town. The vegetable and non-vegetable markets are located in one big market building having 277 stalls, while the beef market is in a separate building which has 12 stalls. They are all under the management of the municipality.

Museum

There is no museum owned by the municipality, but there is a museum run by the Broach Sanitary Association (*see* "Voluntary Social Organization") housed in the upper storey of the Rustomjī Sorābjī Dalāl High School building.

Bridges.

There is no bridge owned by the municipality, but there are two railway bridges within the municipal boundary, one the 'Golden Bridge' now used by the public, and the other, the Silver Jubilee Bridge used for railway traffic.

Hospitals.

The chief hospital in the town is the Government Civil Hospital. It is situated on the Azād Maidān near the clock tower, and with its outhouses and quarters for officers covers an area of 7,208 sq. yards. The hospital building was completed in 1872 at a cost of Rs. 67,000 of which Rs. 25,000 were contributed by Shri Sorābjī Jamshedjī Jījībhāi, a well-known Pārsi merchant of Bombay, and the hospital is, therefore, named after him as the Sorābjī Jamshedjī Jījībhāi Civil Hospital. It has separate departments for out-door and in-door patients and also an X-ray department and an operation theatre. There are 32 beds for men and 4 beds for women. The paid staff of the hospital consists of the Civil Surgeon and two Bombay Medical Service Class III officers. The honorary staff is composed of one surgeon, one opthalmic surgeon, and one dental surgeon. During the year 1953, the number of in-door patients treated was 1,238, the daily average being 49.91. The number of out-door patients treated during the same year was 12,138, the daily average being 232.2. The expenditure during 1953-54 came to Rs. 84,637.

The Municipal Borough runs three hospitals, viz., (1) Bāi Aminābāi Kiledār Dispensary for Women and Children (Fatā Talāv); (2) Uttamrām Maljī Dispensary (Dholikui); (3) Khīmchand Tārāchand Sutariā Dispensary (Vejalpur); and one maternity home, viz., the Broach Free Maternity Home for the poor. The maternity home is situated in the Vasant Mill compound near the Fatā Talāv. This was formerly known as the Ṭāṭā Maternity Home, which was managed by a private body. Since 1st April 1951, the municipality has taken over full control and management of this Home.

In addition there are a few other hospitals run on a charitable basis by private institutions. The Bhagubhāi Mafatlāl Hospital (Sevāsram) built at a cost of seven lakhs of rupees was opened by the President of the Republic, Dr. Rājendra Prasād, on 9th February, 1952. Three lakhs out of the seven lakhs were contributed by Shri Navin Chandra Mafatlāl in memory of his deceased brother Bhagubhāi Mafatlāl, and the hospital bears the name of the latter. It has 125 beds. The attendance during 1953-54 was 1,542 in-door patients, giving a daily average of 51, and 87,048 out-door patients, giving a daily average of 242. The hospital maintains a staff of surgeons, assistant surgeons, nurses, etc., and has opened several departments, such as Radiology, Gynaecology, Ophthalmic, Electro-Cardiogram, and X-ray. There is also a Maternity Department. A training class

CHAPTER 20. Places. BROACH. Hospitals.

for nurses is also run. Some of the nurses when under training are given a monthly stipend of Rs. 15 with food. This hospital is attached to the Sevāshram, and both are managed by a public trust.

The Mission Hospital and Maternity Home is situated at the Idgāh Maidān in a spacious compound. It is run by the Womens' Association for Foreign Missions of the Irish Presbyterian Church. There is also a branch of this hospital near the Jumā Masjid, known as the Kṛṣṇlāl Motilal Hospital and Dr. Dunns' maternity Home.

The Pārsi Maternity Home is situated near the Kursi in an open airy place. It has 12 beds. Only Pārsi ladies are admitted.

There are two veterinary hospitals, one near the railway station, run by the Broach District Local Board, and the other by the Pānjrāpole in the Ali locality, run by Broach Mahājans. Nearly 150 disabled and old cattle are cared for in the latter.

Halls.

There is no municipal hall, but there is a public hall, the 'Sir Shāpurjī Burjorjī Broachā Hall', named after the late Sir Shāpurji Burjorjī Broachā, built at a cost of Rs. 49,446, from the munificence of the late Sir Broachā. It was opened on 12th December, 1912. Situated near the municipal Office, it is a one-storeyed stone building with beautiful *agāsis* (terraces) and small *bunglis* (rooms on both the sides (north and south). The hall is 80 ft. × 36 ft. and has verandahs on both the sides (north and south) 46 ft. × 12 ft. It has a balcony on the west. The hall is fitted with electric lights and fans. It can accommodate 500 chairs and the galleries another 200. The hall is rented for public meetings at Rs. 4, for private sectional meetings at Rs. 10, and for other entertainments for public benefit at a rent to be fixed by the committee. It is managed by the Hall Managing Committee of the trustees created by a public trust.

Libraries.

The Rāichand Dipchand Library On the ground floor of the Shāpurjī Burjorjī Broachā Hall is housed the Rāichand Dipchand Library, 71 ft × 25 ft. accommodating about 30 big cupboards with 14,000 printed books on modern subjects. They are in English, Gujarātī, Urdu, and Hindi languages. Some of them are for children in a separate cupboard. This library has a good income from members and donors to the extent of Rs. 4,000 per year, and receives about Rs. 4,000 per year as grant from the State Government.

There are three other libraries in the town, *viz.*, (1) the Dādābhāi Nawrojī Reading Room and Library, near Jhāḍeswarī gate; (2) the Narsinh Library, in the Jāwāhar Bazār *(Junā Bazār)*; and (3) the Rāṣtra Bhāṣā Pracārak Library near the Lallubhāi Chaklā.

Gardens

There are four gardens in the town, viz., (1) the Dādābhāi Garden near the railway station; (2) Sardār Bāgh near the *Pāñch Fānas*; (3) the Puṣpā Garden near Kho; and (4) the Vejalpur Garden, near Vejalpur.

CHAPTER 20.

Places.

BROACH.

Education.

Primary Education : The Broach Municipal Borough is an authorized municipality under the Bombay Primary Education Act, 1947. It has introduced compulsory primary education for children between the ages of six and eleven. In 1954-55, a total of 8,512 pupils (4,801 boys and 3,711 girls) received education in approved primary schools in the town. The total number of teachers employed in these schools was 183 (112 men and 71 women). The Municipal School Board's expenditure on primary education amounted to Rs. 2,63,188 in 1954-55.

Secondary Education : The Broach Municipality does not run any secondary or technical school. There is, however, a Government High school (Rustomjī Sorābjī Dalāl High School) which has now been converted into a technical school. There are four high schools run by private agencies, viz., (1) the Pioneer High School, a proprietary high school; (2) Union High School, run by the Broach Education Society ; (3) the Progressive High School, run by the Progressive Educational Society of Broach ; and (4) the Motlābāi Wāḍiā Girls High School, run by the Broach Parsi Panchāyat Trust.

Fire Service.

The fire service equipment consists of two fire motor engines each with a tank of 800 gallons, two trailer pumps and four hand fire pumps. The annual maintenance costs is about Rs. 22,000.

Roads.

There are three principal roads in the town. The first, the Station Road, runs from east to west and is about 40 feet wide. It starts from the railway station and leads to White Road, and passing through Sarasvatī Mills, leads to Mahomedpurā, Līmbi Chowk, Ishaqpura, and Idgāh Maidān and thence to Kursī Road. From Kursī Road there are roads taking to Kāḷi *Talāvaḍi* and the Pārsi Tower of Silence. There is also a road branching from Kursī Road to the Rothfeld Garden.*

There is another road, varying in width from 20 to 40 feet, which takes one from the railway station culvert to Dhoḷīkui, Swāmināräyaṇ temple, Hājikhānā Bazār, Navā Dehrā, Lallubhāi Caklā, Jawāhar Bazār (Junā Bazār), Lāl Bazār, and Jummā Masjid *via* Katopore Slope, Cār Rastā, Pīr Kāthi, Uchi Masjid, Mahomedpurā and Ishaqpurā.

The third runs from west to east. It starts from the railway station culvert and leads to Mahārudra *via* Kasak and Mozampur. It varies in width from 30 to 40 feet.

There are 17.5 miles of road in the town, of which 8.25 miles are paved (unmetalled) and 5.08 miles are metalled. Foot-paths and carriage-way are not generally marked, except in two small lengths of road at the Katopore Slope and Tīlak Slope (from Soneri Mahāl to Pāñch Fānas).

* This garden was recently washed off by the flood waters of the Narmadā.

CHAPTER 20. — Places. BROACH.

Cremation and Burial Places : There are no cremation grounds and burial places under the ownership and management of the municipality, but there are several of these places within town limits which are under private ownership. There are two cremation grounds for Hindus, ten burial places for Muslims, three for European Christians, Jews and Roman Catholics respectively, and one for Indian missionaries. There are towers of silence for Parsis.

Objects of Interest :

Objects of Interest. *Begum Wadi* (1)

(1) *Begum Badi* : The Begum Badi is a very spacious and beautiful building with outhouses and a garden, etc. It is situated in the Madresā Street facing the river. It is a 200 year old building named after one Fātmā Khānam, daughter of Mirzā Abdul Bāqi, a big merchant of Broach some 250 years back. It is believed to have been the State building of the last Nawāb of Broach, Mirzā Moāzziz Khān (1768-72 A. D.). After the capture of Broach in 1772 it was occupied by the East India Company, whose factors sold it to one Pārsi, Bairāmshāh, from whom the present Vakhāriā family purchased it. Looked at from the river side, it has a commanding appearence like a small fortress.

Bhrigu Bhaskareshvara Temple. (2)

(2) *Bhrigu Bhāskaresvara temple, Navā Dehrā* : This is built of brick and teakwood by Bhāskar Rāo, a Kāmdār of Broach in the time of the Pesavās.

Bhrigu Rṣi Sthāna. (3)

(3) *Bhrigu Rṣi Sthāna, Kalmi Waga,* outside the Jhādeśvar gate is said to be older than the foundation of the town. This is a plain domed temple containing 17 *lingās*. It is built in brick and lime and has several *dharmasālās* in the court.

Bhutanāth Mahādeva (4)

(4) *Bhutanātha Mahādev* in Bhutanāth Phaliā contains a *ling* in an underground cell said to be of great age, but the temple was enlarged and partly rebuilt in 1857.

Clubs. (5)

(5) *Clubs : Broach Gymkhan,* Kursi Road : Government officers and prominent persons of the public are enrolled as members of the Broach Gymkhana.

Rotary Club, near Municipal Office : The club was started in 1944. It has members of every vocation of life. It holds weekly meetings and quarterly dinners. It also does some service to the Bhil Colony at Vejalpur by distributing free clothing to the needy and milk to poor children.

Other Clubs are the Parsi Ladies' Club, Civil Lines ; the Vakhā riā Club near Civil Lines ; and the Rifle Club near Ranchodjī's Slope.

Doongājī's Agiari. (6)

(6) *Doongājī's Agīāri, former Hirā Vārā Dare Maher* : This is situated on the river side at Bahārkot. It was built by one Behdin Rustamji Hirā Vārā of Surat in 1096 Yazde Jard (1676 A.D.).

Dutch Factory (7)

(7) *The Dutch Factory near Kansārwaḍ* : This factory was built by the Dutch (or *Valandās)* in 1700. The building is very spacious

and has a compound and outhouses. The gallery of the building contains beautiful wooden carvings. In the compound is a sun-dial which was used by the factors during their occupation from 1700 to 1772. The date of the erection of the factory and the name of the chief factor Thienman Janz Groenvelt is inscribed on the sun-dial. At present the building is in private ownership. The greater portion of it is now occupied by the Union High School, the owners having rented it to the school management.

Dutch Factory
(7)

(8) *The Dutch Tomb, Kukerwaḍā Road* : The tombs are of Dutch factors and their families who died here between 1654 and 1770. These are preserved under the Ancient Monuments Preservation Act (VII of 1904).

Dutch Tomb.
(8)

(9) *European Graveyard, Ali Square* : This graveyard is a spacious compound and contains tombs of Europeans who died between 1776 and 1902.

European Graveyard.
(9)

(10) *The Fortification or Koṭ* : This is a stone wall round the town. It is ascribed by tradition to Siddha Rāj Jaisinghji of Aṇhilwāra (1094-1143). The walls were repaired and strengthened by Sultān Bahādurshāh of Gujarāt (1526-36) in 944 A. H. (1533 A. D.). A ditch was also ordered to be dug round the fort for the protection of the town. The ditch was supplied with water from the Narmadā and also form the tanks Fatā Talāv and Ratan Talāv. An Arabic and a Nāgrī *lipi* inscription dated 944 A. H. (1533 A.D.) relating to these repairs is lying in the Custom House mosque. In 1660, under the orders of the emperor Aurangzeb, parts of the walls were thrown down ; but 25 years later, the same monarch was forced to rebuild them to save the town from Maratha assaults. The fort had several gates both on the land side and the river side. Some on the river side are still in existence. The fortifications themselves have fallen into disrepair and in some places almost every trace of them has disappeared. The fort area is about 3,84,000 sq. yards.

Fortification.
(10)

(11) *The Idgāh, Idgāh Maidān Road* : This is built in chunam and bricks on a high plinth. On the pulpit of the Idgah is placed a tablet in white marble with an Arabic inscription of the time of Mohammad Taghluq, dated 726 A.H. (1326 A.D.) It is used on occasions of Id prayers, when the Kāzi of the city, seated in a palanquin, and the Muslims of the city form a procession and go to it to perform Id prayers and Khutbā.

Idgāh.
(11)

(12) *The Imad-ul-Mulk Roze, Vejalpur* : This beautiful mausoleum in chunam and brick is located opposite the Mohamedpurā station below the hillock of Bābā Rāihan. It was built by Caṅgiz Khān in memory of his father Imad-ul-Mulk Arslan Rumi, the Amir of Sultān Mahmud III of Gujarāt and Jāgirdār of Broach and Surat, who was treacherously murdered by his brother-in-law Khudāwand Khān (3rd July 1559). Cangiz Khān was himself treacherously murdered at Ahmedābād (1568 A.D.) by Jhujhar Khān, an Abyssinian amir. Rustom Khān, the son of Cangiz Khān, placed his father's

Imad-ul-Mulk
(12)

CHAPTER 20. — Places. BROACH. Jachā Wādi. (13)

body on an elephant and carried it to Broach where it was interred in the Mausoleum of Imad-ul-Mulk.*

(13) *Jachā Wādi, Ali Suburb* : It is an octagonal mausoleum in stone situated near the P.W.D. travellers' bungalow. It was built in 971 A.H. (1563 A.D.) by one Ain-ul-Mulk in memory of his wife Jachā Bibi. The tomb of Ain-ul-Mulk also lies by his wife's side, It has beautiful *tughrās* written by the famous calligraphist Muhammad Khattat and dated 971 A.H. (1563 A.D.). The arches of the dome have beautiful carvings.

J. D. Vakil Commercial School. (14)

(14) *Jahāngir Dinshāh Vakil Commercial School* : This school is attached to the Rustamji Sorābji Dalāl High Schools. It was established in 1924-25 with the help of munificent donation of Rs. 82,724 from Mr. Dinshāh Bomanji Vakil in memory of his deceased son Jahāngir. The institution is under the control of the Department of Public Instruction. It imparts commercial education to those who have passed the Secondary School Certificate Examination.

Jāmā Masjid. (15)

(15) *The Jāmā Masjid, near the Head Post Office* : This is the biggest mosque in the town and was built before the time of Ahmad Shāh (i.e. 1411 A.D.), and is formed almost entirely of pillars taken from earlier Hindu or Jain temples on the side of one of which it stands. The domes and walls are of Mohammadan origin. It has 88 pillars in all, 32 below the domes and 56 in four rows of 14 each. There are three big domes and ten small ones. There are stone ceilings at the sides of the domes. These ceilings and the domes are very elaborately sculptured in Jain style. The pillars also bear Jain carvings of small idols, elephants, horses and other figures.

The central *Mihrab* (directing Qiblāh) is in white marble with carvings and ornamentations. An Ārab inscription in Korānic verses in praise of the builder of the mosque is engraved on it. The other two Mihrabs (on the right and the left) are of ordinary hard white stones. On the north dome there is a Persian inscription on the entrance door dated 721 A.H. (1321 A.D.) of the Tughluq period. Below the entrance are two heads of cows, and round about the entrance there are beautiful carvings of animals in marble slabs. The Jains consider this to be their Samdi Vihār, repaired by one Sudashnā, the daughter of the Rājā of Ceylon some thousands years ago. But from archaeological point of view, from the resemblance of the pillars to the fort wall stones, it cannot be a building a little more than 900 years old.

On the sourthern entrance of the mosque there are engravings dated 1773-1805 and bearing the names of officers of the regiment of the East India Company who had occupied it after the capture of Broach. The mosque is now used as the Jama Masjid for Friday prayers and for Id prayers on Id days during the monsoon. It is

* History of Gujarat, by M. S. Commissariat.

preserved under the Ancient Monuments Preservation Act (VII of 1904).

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BROACH.

Kabirjū Sthāna. (16)

(16) *Kabīrjī Sthāna, Kabīrpurā* : The image is in a small underground cellar having a plain domed brick temple over it. It is used by the Kabīr-panthīs.

Lallubhāi Haveli. (16)

(17) *Lallubhāi Haveli, Lallubhāi Caklā* : This was built in 1791 by Lallubhāi, an ex-Divan of the last Nawāb of Broach. It is mainly one-storeyed building with a small *bungli* (room) on the second floor. It has a front of carved wood very richly designed. The Divānkhānā is the main part of the building. Lallubhāi used to hold his court here during his Divānship. On the second floor there are arrangements for placing matchlock guns. Some parts of the present building are extensions. According to local tradition, there are underground passages in this *haveli*.

Laxminārāyan Mandir. (18)

(18) *Laxminārāyan Mandir, opposite Ranchodrāi's Temple* : It is nearly 200 years old. The idol of Ṭhākorji is worshipped here.

Madresā Mosque. (19)

(19) *The Madresā Mosque, Kot Pārsiwād* : This is said to be the oldest mosque founded by Mohammadan in 430 A.H. (1038 A.D.). There are two inscriptions in Persian, engraved on wooden plates of the times of Murtuzā Khān Bukhāri, the Governor of Gujarāt (1606) dated 1018 A.H. (1609 A.D.). The date of the construction (repairs) of this mosque is obtained from the numerical value of the words—Masjid-i-Quazi (1018 A.H.). The pillars of the mosque and the front door of blackwood with beautiful engravings 200 to 300 years old. The Kumbhis (bases) of pillars are of marble-stone. The flooring is also of marble. In the compound of the mosque there is a graveyard, with graves of the ancestors of the present Inamdār, and adjoining it is a shrine of the famous saint Maulānā Ishāq, a man of great learning, who died here in 1072 A.H. (1660 A.D.).

Nārielwālā Agiāri. (20)

(20) *Nārielvālā Agiāri, formerly known as Dastur Kāmdeen Dare Maher, fort Broach* : This was built in 1777 A.D. by Head Dastoor Kāmdeen Fardunji.

Ranchodrāi's Temple. (21)

(21) *Ranchodrāi's Temple, near Nawchowki Ovārā* : It is a two-storeyed building nearly 150 years old. It has fine carvings of Shri Kṛṣṇa and *Gopis*, etc. The idol of Ranchodrāī is in black stone and over the idol there is a *chatra* (umbrella) of carved wood. On the *dipmāl* (lamp stand) opposite to it earthen lamps are lighted on Āso Sud Purṇimā.

Roman Catholic Church. (22)

(22) *Roman Catholic Church, near Pakhāliwād* : This is an old church first erected about 200 years ago and then rebuilt in 1861.

R. S. Dalal High School. (23)

(23) *Rustomji Sorabji Dalāl High School* : This building is situated near the Municipal Office. It was erected in 1886-87 at a cost of Rs. 45,820, nearly half of which was raised by the public. A sum of Rs. 7,850 was contributed by the sons of Khān Bahādur Rustomjī

CHAPTER 20.
Places.
BROACH.
Sanitary Museum.
(24)

Dalāl, whose name the school bears. This school is now run by Government as technical school. There is a hostel and a dispensary attached to this school.

(24) *The Sanitary Museum* : This is named the Jahāngir Dinshāh Vakil Sanitary Museum and is housed in the J. D. Vakil Hall attached to the Rustomjī Sorābjī Dalāl High School. It is run by the Sanitary Association. It has 149 models, 189 posters, 20 pathological specimens, 580 charts, 35 m.m. cinema films on maternity and child welfare, 17 m.m. cinema films and 1,049 slides.

Shriji Mandir.
(25)

(25) *Śrijī Mandīr, near Lallubhāi Cakla* : This temple was built in 1790 or even earlier. It is the personal property of the Mahāraj of Kāṅkroli.

Sir Shāpurjī Broacha's Agiari.
(26)

(26) *Sir Shāpurjī Broachās Agiārī, formerly known as Dastoor's Kantha* Agiārī : There is an old Pārsi fire temple near the Malbārī Darwājā gate, built about 800 years ago. It is said to be the oldest one. It has been rebuilt. A new fire temple is built on some portion of it in memory of the late Khān Bahādur Phirojshaw Vakhāriā, dated 1304 Yazde jard (1884 A.D.). and the words are engraved as "Barsanum gate" on it.

Somnath Temple.
(27)

(27) *Somnāth* Temple near the Jhāḍesvar Gate. This is an old temple said to have been built on the site of king Bali's ten horse sacrifice. This is the most sacred burning ground of the Hindus. On this spot, it is said, Balīrāj performed the ceremony of a ten-horse sacrifice, and gained so much merit that the gods feared he would take from them the whole of the universe. To prevent this, the deity Viṣṇu appeared in the from of Wāman, a Brāhman dwarf, and asked the king for as much land as he could step across in three and a half paces. The king granted his wish, and Viṣṇu, with his first pace, included the whole earth; with his second the sky; and with his third the parts under the earth. There remained, therefore, the half pace unprovided for. For this deficiency Baliraj offered his head as forfeit. Wāman placed his foot upon Balīrāj's head, and drove him under the ground. Balīrāj pleaded his fromer merit, and prayed the god to grant him some favour. Wāman, accordingly, promised that when Indra's term of rule should come to an end Balīrāj should succeed him. Wāman further agreed to come and stay with Balīrāj for four months in each year—the season of the rains—from Ashād Shud 11th to Kārtak Shud 10th. During these months, therefore, Hindus perform no marriage or thread ceremonies. The place where Balīrāj is said to have been forced beneath the ground is not marked by any special temple or shrine. On two days in each month—the Agiaras, the 11th day, and the Somwatī Amās (when the last day of month falls on Monday)—the spot is considered especially sacred.

Swaminārāyaṇ Mandir.
(28)

(28) *Swaminārāyan Mandīr, on Jhāḍeswarī gate slope* : This was built in 1833. Built in brick and plaster it stands on a raised platform ascended by 45 steps of Porbandar stone.

Places.

BROACH.

Tower of Silence. (29)

(29) *Tower of Silence, Kukerwāḍā Road* : This is the oldest tower of silence, and was built by Pārsis in A.D. 1309. It was repaired by one Pestonjī in A.D. 1365. It is now out of use, as a new tower of silence has been built (also on Kukerwāḍā Road outside municipal limits).

Victoria Memorial Clock Tower. (30)

(30) *The Victoria Memorial Clock Tower, Azād Maidān* : This clock tower was built in A.D. 1906 at a cost of Rs. 12,906 (public contribution Rs. 8,073 and municipal contribution Rs. 4,833) in memory of the late Queen Victoria. It is a four-storeyed tower with *agāsi* (terrace), the height being 115 feet. On the fourth floor of the building is a big clock, striking quarter of an hour, half an hour, three-fourth of an hour, and an hour. It faces all the four directions. For vizibility at night, there is an electric light arrangement also. The building is managed by municipality and is situated on a good and elevated place facing the river which gives it an imposing appearance.

Viṭhal Nāthajī Mandir. (31)

(31) *Viṭhal Nāthajī Mandir, near Navchowkī Ovārā* : This is a temple built about 150 years ago. The idol is similar to that placed in the Pandharpur temple.

Wedderburn's Tomb. (32)

(32) *Wedderburn's Tomb* : The tomb, situated in the compound of the Civil Hospital, on the north-west of the fort, was erected in memory of Brig. Gen. David Wedderburn, who was killed on the spot by a cannon-shot at the seige of Broach by the armies of the East India Company of Surat in 1772 A.D.

HISTORY.

The city of Broach was, according to the local legend, originally founded by the sage Bhrigu, and so was called Bhrigupur, or Bhrigu's city. To their patron saint the people of the town owe a lasting debt of gratitude, for, by the exercise of his power, he induced the waters of the Narmadā to leave their old bed, about three miles to the south and come to flow close by the new settlement. In the first century of the Christian era, the sage's settlement had given its name to a large province, and the colony had become one of the chief ports in Western India. Two hundred years later it was the capital of a Rājput king, by religion a Jain; and, in the early part of the seventh century, is said by the Chinese pilgrim, Hiouen Thsang, to have contained ten convents with 300 monks, and ten temples. Half a century later Broach was a town of sufficient importance to attract some of the earliest of the Musalmān expeditions against Western India. Under the Rājput rulers of Aṇhilwārā (746-1300), Broach (Bhṛugupūr) was one of the ports of that kingdom. Early in the eleventh century Broach is mentioned as one of the capitals of *Lāṭdeśa,* and about the middle of the twelth century (1153) is described as a station for ships coming from China and Sind, a large city, beautiful, and well built in bricks and plaster; its people, rich, trading, and enterprising in speculation and distant expeditions. During the troubles that followed the overthrow of the Aṇhilwārā kings, the city would seem to have changed hands on more than one occasion. But, with the exception of two years (1534-36), during which it was held

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BROACH.
HISTORY.

by the officers of the emperor Humāyun, Broach remained for about two hundred years (1391-1572), under the Musalmān kings of Ahmedābād. During the sixteenth century the city was twice (1536 and 1546) plundered by the Portuguese, who, in 1546, except for its streets, 'so narrow that two horsemen could not pass through them at the same time, admired the city, with its castlelike Lisbon, its magnificent and lofty houses with their costly lattices; the famous ivory and blackwood workshops; and its townsmen well skilled in mechanics, chiefly weavers, who made the finest cloth in the world'. In 1573 Broach passed into the hands of the emperor Akbar. Ten years later Muzafar Shāh recovered the city, but held it only for a few months, when it again came into the possession of the emperor of Delhi. In 1614 Broach was for the third time plundered by the Portuguese. In 1616 a British factory and in 1617 a Dutch factory, were established at Broach. In 1660 a portion of the fortifications of the city was razed to the ground by the order of the emperor Aurangzeb. In this defenceless state it was twice, in 1675 and 1686, plundered by the Marāṭhās. After the second exploit Aurangzeb ordered the walls to be rebuilt and the city was named Sukhābād. In 1736 the Musalmān commandant of the port was, by Nizam-ul-mulk, raised to the rank of 'nawāb'. His family continued to maintain themselves in a position of almost complete independence till, in 1772, the city was captured by the English. The considerable demand for its cloth, and the recently established export trade in raw cotton to China, combined, during the first period of English rule, to make Broach the centre of a large and prosperous trade. Five years after its transfer to Scindia (1778), though not so flourishing as it had been under the English,' Broach was still a place of much trade, the streets 'swarming with Ārabs Moghals, and many tribes of Gentoos'. Cloth of various kinds was the chief manufacture. It was exported too. Though, after its final acquisition by the English (1803) its trade continued gradually to decline, Broach remained for many years a place of consequence. About the year 1820 began a period of depression that lasted for about twentyfive years. At its close Broach was almost without trade, its chief export (cotton) nearly unsaleable, and both its cultivators and traders, for the most part, sunk in debt. In 1850 the value of its exports began to increase, and, from different causes, continued to rise till, in 1864, comfort, wealth, and extravagance had spread to almost all classes. In fact it may be said of Broach that during all the later years, its fortunes have fluctuated with the price that the cotton of its hinterland has been able to command in the home and world markets.

DAHEJ.

*Dahej** (Vāgrā T.; 21°40′ N, 72°35′ E; p. 2,239) on the right bank of the Narmadā, about three miles from the river and 26 miles west of Broach, is connected by a railway line with Samnī on the Broach-Jambusar line. It was the chief town of a small revenue division of 12 villages that went under British rule in 1780. It was restored to

* See also "Dahej" under Chapter 9 Transport and Communications.

DAHEJ.

the Marathas in 1783, and in 1817, under the terms of the treaty of Poona, was again recovered by the English. The port of Dahej, opening from the Gulf of Cambay on the west of the town, though convenient of approach, does not admit boats of more than 53¼ tons (150 *khāṇḍis*) load and this too only at the time of tides. Dahej is mentioned in the Āin-i-Akbari as one of the ports of the Broach district, but for many years its trade has become very small. In 1804 the port was closed and opened again in 1819. The turnover of traffic at Dahej has gone down as a result of silting.

DEDIAPADA.

Ḍeḍiāpāḍā (21°35′ N, 73°35′ E ; p. 618) is 16 miles away from Netraṅg railway station and is the head quarters of Deḍiāpāḍā taluka. From Netraṅg to Deḍiāpāḍā there is a road. Also the Rājpīplā-Dumkhaḷ road passes through Deḍiāpāḍā. The road from Netraṅg also are a medical dispensary and a District Local Board dharmsālā. It has a good rest-house constructed during the Rājpīplā State regime. A veterinary dispensary was recently opened. During the fair season motor buses run from Netraṅg to Deḍiāpāḍā and Rājpīplā to Ḍeḍiāpāḍā, but in monsoon there is a little transport facility.

DAHEGAM.

Dahegām (Jambusar T. ; 22°10′ N, 72°35′ E ; p. 2.291), on the left bank of the Mahī. three miles west of Kāvī railway station, and about a mile from the mouth of the river, is mentioned in the Ain-i-Akbari as one of the ports of Broach. There is no import or export trade at Dahegām at present.

DEVJAGAN.

Devjagan (Jambusar T. ; 21 55′ N, 72°30′ E) is a place of Hindu pilgrimage about three-fourth of a mile distant from the village of Nādā, (Jambusar T.; p. 1064) at the month of the Dhādhar river and sixteen miles south-west of Jambusar. A fair is held here twice a year, in November (Kārtak Sud 15) and April (Caitra Sud 15). About 2,000 people are estimated to attend on each occasion. It is not connected with any course of pilgrimages. There are rest-houses for a few of the visitors only, and, being near the sea, the supply of drinking water at Devjagan is defective. What there is, is drawn from wells situated in the villages near the place of pilgrimage. At Devjagan the temple is enclosed by a wall measuring 80 feet from north to south, and 100 feet from east to west. It consists of one room about 25 ft. by 18 ft. The temple holds land free of rent 1.211 acres and 20 gunthas in area, and assessed at Rs. 343-8. The fairs at Devjagan have been free from any outbreak of cholera.

DEV MOGRA.

Devmogrā (Sāgbārā M. 21° 20′ N; 73° 55′ E; p. 7), 38 miles from Kevḍī Road railway station (Kosaṁbā-Umarpāḍā line), has a temple of Panḍhar Mātā. Every year on the Mahā Sivarātrī dya. *Māgh vad* 14th (February), a fair is held attended by about 10,000 pilgrims, mostly Bhīls. It lasts for two days. During the days of the fair, the Bhils offer cocks and goats to the goddess, which are subsequently consumed by the worshippers.

CHAPTER 20. — Places. History. DHUMKHAL.

Dhumkhal (Ḍeḍiāpāḍā T.; 20°35′ N; 73°45′ E; p. 310), is populated chiefly by Ādivāsīs. It has a forest depot. About two miles to the south is a hamlet called Devrā with about 20 huts. Near this hamlet is a well and the remains of a few temples with fairly well-carved images.

GAJERA.

Gajerā (Jaṁbusar T.; 22°05′ N, 72°50′ E; p. 3,837) is on the north-eastern frontier of the Broach district, about six miles-north-east of Jaṁbusar and three miles from Māsar Road railway station (Jaṁbusar-Vishvamitrī line). In 1788 Gajerā, then protected by a wall, was described as 'the first town in these districts for elegant houses and magnificent buildings.' In 1849 the place contained 1,175 houses, of which 329 were deserted, and a population of 3,654 souls. The protecting walls had already fallen into decay, and now only traces of them ramain.

GANDHAR.

Gandhār (Vāgrā T.; 21°50′ N, 72°35′ E; p. 735), on the left bank of the Ḍhāḍhar river, about 4½ miles from the Gulf of Cambay and 10 miles from Pakhājaṇ railway station (Samnī-Dahej line) though now a small village, is said at one time to have been a maritime city of some consequence. This is perhaps the Kandhār on the Gulf of Cambay, said to have been attacked by the Musalmāns in one of their early expeditions against Western India, when the temple '*boddī*' was destroyed, and a mosque built in its place. At the close of the sixteenth century Gandhār (Kandhār) is mentioned as one of the ports connected with the emporium of Broach. About the same time (1546) the city was taken without any restistance, and destroyed by the Portuguese in one of their pillaging expeditions along the shores of the Gulf of Cambay. After the destruction of the town by the Portuguese, the people of Gandhār are said to have gone and settled at Jaṁbusar. According to a local legend the Rājā of Gandhār, by his devotion to the worship of the sea, gained a promise that, if he ever stood in need of help, the sea-god would come to his assistance. After some time the king, wishing to test whether the god would keep to his promise, called upon him to come. The god appeared but, enraged with the King's want of faith, set a mightly flood, which overflowed the whole city. Towards the end of the eigheenth century the place was plundered and burnt by pirates from near Cambay, and in 1790 the lands were overflowed by a very high tide. Owing to the failure of the rains in the next season, the salt was not washed out, and, sinking into the land, did it lasting harm. When surveyed in 1820 the village lands were said to have been uncultivated for fifty years at the town itself, elevated mounds of brick and stone, as well as innumerable foundations excavated for building material, or in the hope of finding treasure, were found scattered over a space three miles in circumference. Remains of former prosperity were also noticed in noble tanks at the neighbouring village of Keswāṇ, as well as of a stone bridge and rich tombs of Cāncvel. At Gandhār and in its neighbourhood salt was formerly manufactured, but the salt-pans have been closed since 1868. Trade also has practically deserted the port of Gandhār.

Places.

GANGWA.

Gāṅgwā (Jaṁbusar T.; 22°10′ N, 72°30′ E) is a place of Hindu pilgrimage about one and half miles distant from the village of Dehgām (p. 2,291). A fair is held twice a year, in November (Kārtak Sud 15) and April (Caitra Sud 15). About 2,000 people are estimated to attend on each occasion. It is not connected with any course of pilgrimages. There are no special municipal arrangements in connection with this fair. The idols have no specified names. As the sea in this place is held sacred, pilgrims do not bathe in it, but make use of the water of wells. There are rest-houses for only a few of the visitors; but the water supply from wells is said to be sufficient. At Gāṅgwā the temple is enclosed by a wall measuring 200 ft. from north to south, and 150 from east to west. The building consists of one room, 20 ft. by 15 ft. The temple of Gāṅgwā holds land free of rent 197⅞ acres in area, and assesed at Rs. 320-4. No outbreak of cholera is recorded here.

HANSOT.

Hānsot (21°35′ N, 72°45′ E; p. 6,078) about two miles from the left bank of the Narmadā, and about fifteen miles south-west of Broach, is the headquarters of the Hānsot peta. Hānsot, which was formerly the chief town of the sub-division of that name first fell under British rule in 1775, was given back to the Pesavā in 1783, and was again restored to the British in 1803 under the terms of the treaty of Bassien. Hānsot was made part of Ankleśwar sub-division in 1869, but was again constituted a separate taluka on 1st August 1947. There is a dispensary in the town run by the District Local Board. Steps are in progress to reclaim *khar* lands in this mahal.

JAMBUSAR.

Jaṁbusar 22°00′ N, 72°45′ E, a. 1·75 sq. miles: p. 14,241) is situated about five miles north of the Dhādhar river on a slight elevation. The soil in the neighbourhood is of the light, *gorat*, variety, and the town is surrounded by groves of rich and well-grown trees. To the north of the town is a lake of considerable size sacred to Nāgeśwar (snake-god) with richly-wooded banks, and in the centre of the water small island about 40 ft. in diameter overgrown with mango and other trees. Formerly the town was protected by a wall built partly of brick and partly of mud. But as early as 1849 the wall was in ruins, and by 1880 even traces of it had almost entirely disappeared. In the town is a strong *thāṇā*, or native-built fort, erected by Mr. Callendar when Jaṁbusar was held by the British from 1772 to 1783. This fort furnishes accomodation for the treasury, the civil courts, and other Government offices. Some of the houses in the town are large and lofty.

History.

Jaṁbusar, which is said to have been a place of trade from very early times, was, together with the lands of the sub-division of the same name, first handed over to the British in 1775 by Pesvā Raghunāthrāv. Afterwards when, under the terms of the treaty of Purandhar, the alliance between Raghunāthrāv and the British came to an end, Jambusar was contained to be British by the Government at Poonā as security for the payment by the Pesvā of a sum of twelve lakhs of rupees. As this money was not paid, Jaṁbusar

CHAPTER 20. — Places. Jaṁbusar.

remained in the possession of the British till, in 1783, it was restored to the Pesvā. The town remained under Marāṭhā rule till, in 1817, under the terms of the treaty of Poonā, it was finally handed over to the British.

Since it first went under British rule, the importance of Jaṁbusar as a centre of trade would seem, on the whole, to have fallen off. In 1777 Mr. Callender, at that time Collector of Jaṁbusar, estimated its population at twenty to twenty-five thousand souls, but this was only a rough calculation, as no special enumeration had then been made. In 1788 Dr. Hove described the streets as containing 'element houses, some no less than three stories high, and very neat in regard to cleanliness.' Indigo was then one of the chief articles of trade. In 1817 the survey officers found that the town contained 3,658 houses and a population of 10,474 souls. The traders of Jaṁbusar were at that time the conductors of, and agents for, the extensive trade carried on with the interior parts of the country through the port of Ṭaṅkārī. The town was then (1817) said to be compact and well built, the population apparently wanting for space.

In former times when Ṭaṅkārī, ten miles south-west of Jaṁbusar, was a port of but little less consequence than Broach, Jaṁbusar was a town of considerable trade. Since the opening of the railway (1861), the traffic by sea at Ṭaṅkārī fell off very much. On the other hand, Jaṃbusar is only 18 miles distant from the Pālej station on the Surat-Barodā section of the Western Railway, and as roads were made connecting Jaṁbusar both with Pālej and Broach (27 miles), a traffic by land to some extent took the place of the old sea trade. The chief industries of the town are connected with the export of raw cotton. There are a number of ginning factories in the town.

According to the 1951 census, agricultural classes in the town numbered 3,445 persons and the non-agricultural classes 10,797 persons. Of the latter, 2,423 persons derived their principal means of livelihood from production other than cultivation, 2,543 from commerce, 335 from transport, and 5,498 from other services and miscel laneous sources.

Municipality.

The Jaṁbusar municipality was established in 1856 and is now functioning under the Bombay District Municipal Act, 1901. The municipal area is divided into seven wards which elect 18 members to the municipal council. Out of the 18 seats two are reserved for women by a system of rotation in four wards and one is reserved for a member of the Scheduled Castes and Tribes.

In 1952-53 the total income (excluding Extraordinary and Debt heads) was Rs. 1,75,685, composed of rates and taxes, Rs. 90,315; income derived from municipal property and powers apart from taxation, Rs. 27,427; revenue under special Acts Rs. 694; grants and

contributions Rs. 55,504; and miscellaneous Rs. 745. The total expenditure (excluding Extraordinary and Debt heads) was Rs. 1,49,379, administration and collection charges absorbing Rs. 24,658; public safety Rs. 11,254; public health and convenience Rs. 53,499; public instruction Rs. 56,171 and miscellaneous Rs. 3,797.

In 1951 there were in the town 3,030 houses. The town had 6.87 miles of road, of which 2.06 miles were metalled, including 0.30 mile of concreted road, and 4.83 were unmetalled. The municipality maintains an electric power house. The streets are lighted by nearly 375 electric lights and 100 kerosene lamps. The municipality maintains a public library. There is another library run by private donations. There is no sewage system. Removal and disposal of night soil and refuse are done by manual labour. Compost is manufactured out of the nightsoil and refuse. There is a public garden maintained by the municipality. Two charitable dispensaries, attached to which are maternity homes, are run by the municipality. There is no drainage system, and sullage flows into cess pits. There is no piped water supply. On the north of the town there is a big tank known as Nageshwar tank formed by rain water collecting into a deep pond with a capacity of 1.26 million gallons with three feeder channels to it. *Ghāṭs* have been provided at many places on the banks of the tank for use by the public for washing, bathing, and watering cattle etc. There are sixteen wells situated on the bank of the tank which yield clear and potable water and people use it for drinking purposes. In addition to these there are about 50 other wells in the town which are mainly used for domestic purposes other than drinking as the water is brackish. The rate of water supply is five gallons per head per day. The average rainfall of the town is 25 inches.

Education.

Under the compulsory education system, primary schools are run by the District School Board, the Municipality paying its statutory contribution. One high school, with a strength of 18 teachers and 470 students, is run by the municipality. The fire service is composed of two fire pumps run by manual labour and five hand pumps. In the outskirts of the town there are two cremation grounds for Hindus and six burial places for Muslims.

Objects.

The Nāgeshwar tank and the small hill surrounded by its waters and the fort are the chief places of interest at Jambusar. At Brahmakhatar, about a mile from Jambusar, is a large religious building called *Ācārya's Beṭhak,* the residence of the preceptor of the Vallabhācārī sect. There is a charitable dispensary, and there *dharmaśālās* (rest-houses). The chief traders of the town are associated together in a mahājan, with a view to settling questions of trade and carrying out certain charitable objects.

Fair.

A fair of Bāwā Rustam is held at Jambusar once a year (on the 13th day of Rajab). About 3,000 people are estimated to attend. The fair lasts for two days. It is not connected with any course of

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pilgrimages. There are rest-houses, but capable of holding very few persons. The *dargā* is encompassed by a mud wall, and the only room is 30 ft. square. The dargā holds 5 9/10 acres of land assessed at Rs. 44-10-8, and receives a yearly cash allowance of Rs. 32-2-8. No outbreak of cholera is recorded in connection with this fair.

JANOR.

Janor (Broach 21° 50′ N, 73° 05′ E), is a village on the Narmadā about 20 miles to the north-east of Broach town. This is the location of a lift irrigation scheme started in April 1951. Water is to be lifted from the Narmadā to a height of 90 feet by means of powerful engines and pumps to irrigate about 2,000 acres of fertile land. The total estimated capital cost of the scheme was Rs. 3,13,666. The working expenditure in 1953-54 came to Rs. 37,758. The actual area irrigated by the scheme in the same year was 485 acres.

JHAGADIA.

Jhagaḍiā (21° 40′ N, 73° 05′ E; p. 2,594) is the headquarters of the Jhagaḍiā tālukā and is a railway junction where Aṅkleśwar-Rājpīplā and Jhagaḍiā-Netraṅg lines meet.

JIOR.

Jīor (Nāndod T.; 21° 15′ N.; 73° 00′ E; p. 666), on the banks of the Narmadā, 3 miles from Cāndod railway station, has a stone and cement temple of Kumbheśwar Mahādev, held in local esteem from its mention in the Narmadā Purāṇ. The Brāhman who performs the worship was paid a yearly sum of Rs. 400 by the former Rājpīplā State. The Barodā State also used to contribute towards the expenses of the temple. After the merger of States, the contributions were discontinued by the Government of Bombay. But the *pujā* is now performed by *Tapodhans* and *Gosāis* who enjoy temple lands. Besides an image of Shīv, two images of *Panotis* (one small anr the other large) are worshipped withlibation of oil The offerings are shared by *Tapodhan* Brāhmaṇs who worship the image of Shīv. On every Saturday in Śravaṇ (July-August) a fair is held, attended by about 300 to 400 people, from villages within a distance of about 20 miles, the number rising on the last Saturday, if the weather is fair, to about 2,000. The people come in the morning, bathe, worship the image, and leave in the afternoon. A few Bohorās, confectioners, betel-leaf sellers, and grocers open stalls and daily sell goods worth from about Rs. 800 to Rs. 1,000.

KADOD

Kaḍod (Broach T.; 21° 10′ N.; 73° 10′ E.; p. 89) is a place of Hindu pilgrimage in the Broach sub-division on the right bank of the Narmadā, about half-way between the town of Broach and Shuklatīrth. The ceremonies, which occur once in every twentw years when Vaishakh (April-May) happens to be the intercalary month, are in honour of Mahādev, under the name of Koteshwar or Kotīliṅgeśwar, and last for a whole month. Nearly a lakh of persons assemble at the fair. As at Bhāḍbhut the ceremonies at Kaḍod are special, and the visitors when they have finished them, return to their homes. During the time of the fair the pilgrims live in sheds and temporary huts. The Narmadā flows close by the site

CHAPTER 20. Places. KADOD

of the fair. But as the gathering takes place in the hot weather, and below the limit of the tide, fresh water is hard to find. The people are sometimes forced to dig pits near the bank of the river, and much inconvenience is felt. There is a temple at Kaḍod consisting of one chamber about 11 ft. square, and entered by a door 5 ft. 2 in. high and 3 ft. 3 in. wide. The Kaḍod temple holds about half an acre of land, assessed at Rs. 3-8, and receives from the Government a yearly cash allowance of Rs. 3-12. There is a newly built *dharmaśālā* near the temple in which about a hundred people can live.

KAHANVA.

Kāhānvā (Jaṁbusar T.; 22° 10′ N.; 72° 50′ E.; p. 3,869) is a place of Hindu pilgrimage, four miles from Kural railway station on the Jaṁbusar Vishvamitrī line. A fair lasting three days is held once a year, in October (Āso Sud 15). About 3,000 people are estimated to attend on the occasion. It is not connected with any course of pilgrimages. There are no special municipal arrangements in connection with the fair. The objects of worship at Kahānvā are the Pādukā (wooden shoes) of a saint by name Kalāṇḍāsjī. There are rest-houses for a very few of the visitors only. The supply of water from wells situated in the neighbouring villages is said to be sufficient. The water of a well at Kāhānvā is held to act as a cure in cases of snake-bite and hydrophobia. At Kahānvā the temple is enclosed by a wall measuring 223 feet from north to south and 234 ft. from east to west. The building consists of one room 16 ft. by 15 ft., with a door 6 ft. by 3 ft. No outbreak of cholera is recorded in connection with the Kahānvā fair.

KAVI.

Kāvī * (Jaṁbusar T.; 22° 10′ N.; 72° 35′ E.; p. 5,426) a place of Jain, Sravak, pilgrimage on the left bank of the Mahī river, was formerly a town of some importance. It is connected with Jambusar by a railway line. In addition to the remains of old buildings there are two temples of comparatively recent date. They are said to have been erected by merchants of Cambay in honour of two marriages; one of them is called, after the mother-in-law, *Sāsu*, and the other, after the daughter-in-law, *vahu*. The inner chamber of the mother-in-law's temple is 12 ft. square and 25 ft. high. It is entered by a door 7 ft. high and 4 ft. wide. The daughter-in-law's temple has a chamber 14 ft. by 12 ft. and 40 ft. high. It has a door about 6 ft. high and 3½ ft. wide. Both of these buildings are surrounded by walls. There is no special day for visiting Kāvī. Jain pilgrims, sometimes singly, sometimes in bands of from 50 to 200, pass through Kāvī generally on their way to Pālitāṇā, Gīrnār, and Gogo. The Kāvī temples receive no grant from Government. They are managed by the Jain community. The revenues are kept by a banker in Jaṁbusar, who meets any charge that may be required for repairs. The story about the origin of the two temples at Kāvī, is, that the mother-in-law of a rich Cambay merchant built the first temple. When finished, she went with her daughter to see

* See also "Kavi" under Chapter 9. Transport and Communications.

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it. But the daughter was tall, and as she entered struck her head against the gate. She reproached her mother with the meanness of the entrance, who, in reply advised her to built something better. On her return to Cambay the daughter went to her father and asked him to let her have money to build a temple. He agreed, promising to give her the profits of the cargoes of seven ships. The profits turned out to be Rs. 11,00,000, and with this sum the second temple was built.

LIMODRA.

Līmodrā, also known as Nīmodra (Jhagadīā T.; 21°20′ N, 73° 00′ E; 1,334), one mile from Jhagaḍīā railway station, has a temple of Rikhavdevji. From an inscription on the footstool of the image, it appears to have been set up on *Mārgsirs sud* 14th, S. 1120 (December 1064). The immage was lost till 1864 (S. 1920), when it was found in a field in Līmodrā. The Chief of Rājpīplā built a temple at Jhagaḍīā Kasbā and placed the image in it on *Māgh Vad* 5th, S. 1928 (February 1872). The expenses of the temple are defrayed from the rents of some houses and shops attached to it amounting to Rs. 150 a year, and the offering of the Jain devotees who flock there every year on *Kārtak sud* 15th (November) and *Māgh vad* 5th (February). The fair lasts for a day and is attended generally by not more than 150 pilgrims. The only trade is in grain sold for food to the amount of Rs. 60. Three miles east of Limodra is the site of the old carnelian mines. These stones used to be burnt at Limodra. The mines have not been worked for the past forty years.

MOKHADI.

Mokhaḍī, also known as Surpāṇ (Nāndod T., 21°45′ N, 73°40′ E; p. 480), 20 miles from Rājpīplā railway station has about four miles off, on a high bank of the Narmadā, two very old temples, one of Śulpāṇeśvar Mahādev (the trident-bearing god), the other of Raṇchoḍjī. For their support, the former Barodā State used to pay Rs. 700 a year, and the offerings of the pilgrims came to about Rs. 100 more. The former Rājpīpla State paid about Rs. 300 for the maintenance of the temple of Raṇchoḍjī and the feeding of those who visit all the holy places on the Narmadā. After the merger of these States with the Bombay State the allowances were discontinued by the Government of Bombay. Here, every year, on *Caitra Vad* (30th April), a fair is held. Pilgrims from all parts of Gujarāt begin to gather from *Caitra vad* 11th, till, on the fair day, the number reaches 5,000. There is no trade except in sweetmeats and food.

MOTA SANJA.

Moṭā Sāñjā (Jhagaḍīā T.; 21°40′ N, 73°05′ E; p. 429), one mile from Jhagadīā railway station, has the temple of a saint named Jñānījī. The story is that Gorakhjīī, the well known disciple of the great ascetic Machīndar, in an interview with the reformer Kabīr at Benares, asked him to give him divine knowledge, jñāna. Kabīr replied, that, as he was a follower of Machīndar, he could not instruct him in his present life, but would do so in the next on the banks of the Narmadā. Gorakhjī accordingly abandoned this life, and was born again in the house of the Rājā of Jeisalmīr in Mārwār in the

MOTA SANJA

person of Jñānījī. When eleven years old he visited Kabīr at the *Kabir vad* tree near Broach. Taught by the sage, Jñānījī settled in the village of Sāñjā, and built a temple of Rām and Lakshmaṇ. He died on *Pos sud* 11th (January). The pilgrims worship the foot-prints of Jñānījī. The expenses of this temple, amounting yearly to about Rs. 800, are met partly from land granted by the former Rājpīplā State which yields about Rs. 400 a year and partly from land in former Barodā State and also from other districts yielding nearly the same amount.

NIKORA.

Nikorā (Broach T.; 21° 45′ N, 73° 05′ E; p. 2,823), a village on the Narmadā, five miles distant from Nabīpur railway station and about four miles to the north-east of Broach town, is the centre of a lift irrigation scheme started in November 1949. Water is to be lifted from the Narmadā river to a height of 60 feet by means of powerful engines and pumps to irrigate about 6,000 acres of fertile land. The total estimated capital cost of the whole scheme is Rs. 6,37,506. The total lift is 60 feet. The working expenditure on this scheme in 1953-54 was Rs. 70,333. The actual area irrigated by the scheme in the same year was 1073 acres.

PARIEJ.

Pariej (Broach T.; 21° 45′ N. 72° 55 E; p. 1,685), is a small village 3½ miles from the railway station of Dayādrā (Broach-Kāvī line). One mile distant from this village is a place of Musalmān resort dedicated to the saint Bāwā Rustam. In honour of the saint an annual fair is held at this place on the 22nd day of Jamādi-ul-awal. About three thousand people are estimated to attend. The fair lasts three days. It is not connected with any course of pilgrim-ages. There are rest-houses here, but capable of holding very few persons. The water-supply is defective. There are no enclosures to the mosque. There are two rooms, one of them being the ante-chamber, which is 40 ft. by 30 ft. The other room is 30 ft. long, 20 ft. wide, and 6 ft. high. The *dargā* holds 76 9/10 acres of land, assessed at Rs. 205-6. No outbreak of cholera is recorded in con-nection with this place.

PIR PARDI.

Pīr Pārḍī (Ankleshwar T.) is a place of Musalmān pilgrimage. It is in Pārḍī-Mokhā village (p. 292) nearly three miles away from Daḍhāl Inām railway station (Aṅkleśwar-Jhagaḍīā line; 21° 75′ N, 73°00′ E). A yearly fair is held here in honour of the saint, whose tomb is no less than fifteen yards long. Pilgrims are said occasion-ally to go there, taking with them a sheet of this length. If the cloth exactly coveres the tomb, they leave satisfied that their wish will be accomplished.

RAJPIPLA.

Rājpīplā (Nāndod T., 21° 50′ N; 73° 30′ E: a 1.3 Sq. miles; p. 17,420), is the chief town of the former Rājpīplā State. Rājpīplā was known as Nāndod* till 1918-19 when it was given its present name. It is connected with Aṅkleshwar by a narrow-gauge railway

* Nandod was in ancient times known as Nandipuri, capital of the Gurjaras (629-41 A. D.).

CHAPTER 20. Places. RĀJPIPLĀ.

line 41 miles long. It lies about thirty-two miles east by north from Surat, on a rising ground in a bend of the Karjaṇ river about eight miles from the Narmadā. Flowing almost due north till it reaches the south end of the town, the Karjaṇ makes a sharp turn for about two miles to the south-west. It then bends to the north-west for nearly a mile, and from that suddenly swerves north-east until it reaches the north end of the town, and then, leaving the town, flows towards the north. Near the town the river is about 725 ft. broad, but, except during the rains, it is easily fordable save at a few deep pools.

According to 1951 census the agricultural classes in the town numbered 1,999 persons, and non-agricultural classes 15,421 persons. Of the latter 2,439 derived their principal means of livelihood from production other than cultivation: 3,073 from commerce: 353 from transport; and 8,556 from other services and miscellaneous sources.

Municipality.

The Rājpīplā municipality was run as a department of the Rājpīplā State until that State's merger in the Broach district in 1948. Soon after the merger, Rājpīplā town was declared a municipal area under the Bombay District Municipal Act, 1901. The municipality is now composed of 16 members elected from four wards. Three seats are reserved for the Scheduled Castes and Tribes (one in ward I and two in ward IV) and two seats for women (one in ward II and the other in ward III), and the rest eleven are general seats. The first election was held on 17th April, 1951.

In 1951-52 the municipality had a total income (excluding extraordinary and Debt heads) of Rs. 2,08,994, comprised of rates and taxes, Rs. 1,75,240; realization under special Acts Rs. 1,077; revenue derived from municipal property and powers apart from taxation Rs. 10,005; grants and contributions Rs. 20,581; and miscellaneous Rs. 2,091. Its total expenditure (excluding Extraordinary and Debt heads) amounted to Rs. 1,82,357, of which administration and collection charges absorbed Rs. 20,866; public safety Rs. 24,462; public health and convenience Rs. 72,945; and roads Rs. 14,836.

The municipality maintains a water works which is capable of supplying 4,00,000 gallons a day. The supply, however, is intermittent, three hours in the morning and three hours in the afternoon. There are also two fire-fighters. There are a public gardens and a public library known as Victoria Jubilee Library run by the municipality. There are two clock towers; one is very old and is municipal, and the other was recently constructed. Street lighting is done by means of electricity and there are nearly 355 street lights. There are 8½ miles of metalled roads and 12 miles of Kachā roads in the town.

HISTORY.

As early as 1304 A.D., the Musalmāns are said to have driven the Nandod, or Nadot, chief from his capital, and made it the headquarters of one of their districts, building a mosque and issuing coins.

The village of old Rājpīplā, situated in a part of the country almost inaccessible to any except Bhils, became the headquarters of the Nāndod chiefs, where they lived till about 1730, when they built a new fort in the spur of a hill at the meeting of the Tarai and Karjaṇ and shifted their headquarters there. This came to be known as New Rājpīplā. By this time the Mohammadan power had fallen and the Nāndod chiefs had recovered most of their lost territories. It was not, however, till 1830, that they returned to their original headquarters at Nāndod. Nāndod was renamed Rājpīplā in 1918-19.

Rājpīplā has one main street running from north to south, with many three-storeyed brick and cement houses, some with balconies and overhanging wood work. Formerly very winding, this street was, in 1868, after a fire, improved and widened chiefly south towards the palace. On both sides, behind the buildings of the main street, are Bhil huts. At the south end of the town is an old palace, known now as Junī Havelī, a bare quadrangular three-storeyed building with four square flanking towers, in a large enclosure. From the basement, which was given up to store rooms and guard rooms, a dark flight of narrow steps led to the first floor, where the *Darbār* or reception room, narrow, low and lighted from doors leading into a front verandah, stretches nearly the whole length of the building. There are three other palaces, viz., Chatra Vilās Palace, the Vijay Palace and the Indrajī Padmīni Mahāl (Vaḍia Palace). The Vadia is the best of the three. The Chatra Vilās Palace now houses the Training College. There is also a State House which is a palatial building.

Trade.

Besides with vegetables, the market is well supplied with mill cloth made in India, coarse country cloth, grocery, spices, tobacco, glass bangles, children's toys, sweets etc. The trade is mostly local, imports of hardware, groceries and cloth, and exports of agricultural produce, honey, wax, wood, and bamboos. Nāndod is mentioned in 1955 as celebrated for its cutlery, sword-belts, and *sāmbar* skin pouches. Country *(duṅgri)* cloth and tape *(pāṭi)* were woven by the Dheḍs.

Forts.

There are two forts in Rājpīplā, one immediately behind old Rājpīplā on the top of the Devastra hill about 2,000 feet high and the other at New Rājpīplā.

The fort at Old Rājpīplā was in former times almost inaccessible to any one but a Bhil, being approached by narrow footpaths, which, with a little trouble, could be made impassable even for infantry. No wheeled vehicles could get there, the road, for about eight miles (5 *kos*), lying through a narrow gorge between high overhanging hills. It was a safe retreat, when, if invaded, the chief blocked the path with wood and rubbish. It is now accessible by a regular road cut through hills, and vehicles including motor cars, can now go to the place easily. At this place is June Rāj, a village inhabited by Bhils. It is 10 miles from Rājpīplā in the south-east direction.

CHAPTER 20. Places. RAJPIPLA. Forts.

The other fort is the new one built at about 1730 in new Rājpīplā. During the State regime, the State military was stationed here. This is situated on the spur of a hill at the meeting of the Tarai and Karjaṇ, and is approached, along the bank of the Karjaṇ, through two miles of a wild and beautiful mountain gorge. In front of the fort the *Lāl Darvājā*, a gateway with flanking towers, overshadows the road leading from Rājpīplā to June Rāj. The road is now in a good condition. It passes below this gate, and there is now traffic of lorries, carts, etc., on the road. The new fort is now almost destroyed.

RATANPUR.

Ratanpur (Jhagaḍīā T., 21° 40′ N; 73° 10′ E; p. 449) 2¼ miles from Jhagaḍīā railway station, stands on the top of one of a series of small round hills, about fourteen miles above Broach. Here, in 1705, the Marāthās gained a most complete victory over the Mughal army under Safdar Khān Babi and Nazar Ali Khān. At the foot of a hill, in an uncultivated tract, about five miles south-west of Ratanpur, and three miles east of the village of Līmodrā, commonly called Nīmodrā, is the site of the celebrated carnelian mines. These mines are not being worked for the past 40 years. On the top of the hill above the mines is the tomb of Bāwā Ghor. There is a legend about the origin of the tomb. A long time ago the goddess Mākhan Devī lived on the hill and near her a lamp, fed by fifty pounds of butter, continually burned. So strong was the light, that the Prophet Mohammad at Meccā asked Shaikh Ghorī Sīddī or Bāwā Ghor to see whence the light came. On the coming of Bāwā Ghor, Mākhan Devi sank under the ground and the saint settling there is stated to have worked miracles. He is believed to be still working miracles. If a person caught by a tiger only calls on the saint's name, it is believed, the tiger would release him. A fair is held every year on the 6th of the Mohammadan month of *Rajjab*, when, according to the season of the year, from 100 to 500 Mohammadan worshippers come from all parts of Gujarāt. The former Rājpīplā State had granted lands yielding about Rs. 201-12-0 a year to maintain this tomb. On the same hill, at a litle distance from Bāwā Ghor's tomb, are the tombs of Bāwā Habash and Māi Meshrā, the brothers of Bāwā Ghor, who, when twelve years had passed, came from Meccā to look after their brother. Near this tomb is a *rāyan* tree (Mimusops indica), commonly resorted to as a tree of ordeal. Its intertwined branches form a loop, through which suspected persons are made to pass, the popular belief being that while shrinking and holding fast the guilty, the loop allows the innocent to pass through unhindered.

SAGBARA.

Sāgbārā (21° 30′ N; 73° 45′ E; p. 518) is headquarters of Sāgbārā Mahāl and is 28 miles from Kevḍā Road railway station on the Kosaṁbā-Zankhvāv railway line of the Western Railway road.

SHUKLATIRTH.

Suklatīrth (Broach T.; 21° 45′ N, 73° 05′ E; p. 3,482), is situated on the northern bank of the Narmadā, ten miles above the town of Broach. The Suklatīrth fair is perhaps the most important of the fairs

in Broach district. This fair is held every year, about November, on the occasion of the full moon of the month Kārtak. It lasts for five days, and, on an average 25,000 people are estimated to attend. Special sanitary arrangements are made for this fair by the village panchayat of Śuklatīrth under the guidance and supervision of the District Public Health staff.

At Śuklatīrth within a short distance of one another are three sacred waters, (*tīrth*). the Kavītirth, the Oṅkāreśvartirth, and the Shuklatirth. Of these three places, only at the Oṅkāreśvara water is there a god to be visited. The temple itself is without an enclosure, and has nothing special or remarkable in its appearance. The worshipper enters an ante-room about 23 ft. long and 7 ft. wide, passes through in inner room about 11½ ft. square, and is then, through a door-way about 5½ ft. high and 3½ ft. wide, admitted into the inner temple, a chamber 10½ ft. long and 7 ft. wide. The image of the god is of white stone, about 5 ft. high, in a standing position, and with four arms. In each hand there is one of the four emblems of Vishnu, viz., *śaṅkh* (war shell); *chakra* (disc); *gadā* (mace); and *padma* (lotus). On either side of the chief statue are small images of Brahmā and Mahādev, the whole representing the trinity, *trigunātma*, of Brahmā, Vishnu, and Maheśwar. The name of Oṅkāreswar is said to have been given to the god, because, with a cry of 'Om' the image came up from the water of the Narmadā. The affairs of the temple are managed by the Brāhmaṇ Samāj. This Samāj is appointed by the *pañch* (committee) of the Śuklatīrth village. The revenue of the temple is derived from two sources, State grants and the gifts of pilgrims. Under the first head, the managers of the temple hold from the State Government seven and a half acres of land, assessed at Rs. 28-1-4 a year. They also receive a yearly cash allowance of Rs. 39-9 from the Government. Besides these grants the temple is enriched by gifts from pilgrims. But as the value of the gift depends on the feeling of the worshipper, it is impossible to estimate the income derived from this source. All presents placed by the worshipper at or near the image are considered the property of the god and expenses connected with the management of the temple have to be met from these offerings. The surplus is kept by the *pujāris* for their own use. These men also increase their incomes by providing accommodation and food for the pilgrims, for which they receive special payments. During the time of the fair some of the pilgrims live in the houses of the villagers, and others in tents and temporary sheds in the dry bed of the river. There is a plentiful supply of water from the Narmadā. No outbreak of cholera is known to have taken place at Suklatirth during the celebration of the fair. As a rule, the high-caste and well-to-do Hindu visitors live in *Brāhmaṇs'* houses in the village; their hosts generally supply them with beds and cooking-pots, receiving presents in return. The poorer pilgrims encamp in the sandy bed of the Narmadā, some under temporary sheds, and others on the open ground. Besides Hindus, Pārsis and

CHAPTER 20. — PLACES.

Musalmāns also attend the fair, not from any religious feelings, but simply for pleasure and amusement, or curiosity.

SHUKLATIRTH.

The following is the account of the discovery of Śuklatīrth. In former times, says the legend, men were aware that somewhere on earth was a spot holy enough to purify from all sin. But where this place was to be found, none, even the wisest, could tell. It happened that a certain king of Ujjain, Cāṇakya by name, grew old, and, thinking over the evil of his life, longed to find out this Suklatīrth, or puryfying spot. To draw out their secret from the gods, the king told the crows, whose feathers were at that time white, and who alone of birds had leave to enter the realms of the gods, to fly to Yam, the ruler of the infernal regions, and to tell him that king Cāṇakya was dead. The crows were then to listen to the plans of the god Yam for the treatment of the king's soul, and were to try and learn, from what was said, where the wished-for Suklatīrth was to be found. From what the birds heard they were able, on their return, to tell the king to start down the stream of the Narmada in a black-sailed boat, and that when the blackness left his sail and it became white, he might know that he had reached the Śuklatīrth. The king obeyed the words of the crows. After passing down with the stream for several days, looking in vain for a change in the colour of his sail, on a sudden it flashed white in his eyes, and he knew that his journey was over. Leaving his boat, he went on shore, bathed, and was purified. Yam, however, hearing of the deception practised upon him, was angry, and forbidding the crows to appear again in the realms cf the gods, the guilt of king Cāṇkya cleaving to the deceitful birds, tarnished their plumage with stains, from which, till this day, they have failed to free themselves. There is more than one instance in ancient history of men in high position coming to Suklatīrth to be made pure from sin. Perhaps the best-known example is that of Chandragupta and his minister Cāṇakya, coming to be cleansed from the guilt of the murder of Chandragupta's eight brothers. So, also, in the beginning of the eleventh century, Cāmuṇḍ, king of Aṇhilwārā, heart-broken at the loss of his eldest son, came as a penitent to Śuklatīrth and remained there till he died. The ceremony of launching on the Narmadā a boat with black sails to become white in token that the sins of the penitent are taken from him, is still practised at Śuklatīrth. But now the pilgrims, not being kings, use, instead of a boat, a common earthen jar. This they set afloat, having set inside of it a lighted lamp, and, as it drifts down the stream, it carries away with it their sins. Nearly one lakh of people assemble at the fair.

SURPAN.

Surpāṇ (Nāndod T., p. 160): See under Mokhḍī Ghāṭā of which Surpāṇ is another name.

TANKARI.

*Ṭankārī** (Jambusar T.; 21° 55′ N; 72° 40′ E; p. 1,754), the third port in the district of Broach, is situated on the east side of a small

* See also "Tankari" under Chapter 9. Transport and Communications.

CHAPTER 20. Places.

creek, which for about five miles strikes northward from the right bank of the Ḍhāḍhar about seven miles from the mouth of that river. Though difficult of approach, the creek on which it stands being, even for the smaller country craft, unnavigable, except at high tide, Ṭankārī was once the port for a considerable trade of country, for the opium of Mālwa as well as for the cotton and grain of Jambusar and Āmod. Though, since the introduction of the railway, trade has to a large extent left Tankārī, the returns for 1949-50 and 1950-51 show a total trade of the value of Rs. 6,92,536, and Rs. 5,37,778 respectively.

UCEDIA

Ucedīā (Jhagadīā T.; 21° 40′ N; 73° 05′ E; p. 1,454) is a village half a mile from Gumāndev railway station (Ankleshwar-Rājpīplā line). It has a temple of Gumāndev, or Hanumān, held in high local esteem. The story, as told by the temple priests, is that many years ago the site was densely covered with forest. Gulabdas, an ascetic, found an image hid in a thorn bush and raised a small shed over it and afterwards a stone and cement temple. In time money flowed in and round the temple large *dharmasālās* (rest-houses) were built. On every Saturday in Śrāvaṇ (July-August), a fair is held attended by about 1,500 people from the neighbouring villages. The pilgrims worship the image pouring over it offerings of oil. The temple has a small reservoir, where the oil offered to the image is stored. The expenses of the temple, about Rs. 1,500 a year, are met from the rents about Rs. 200 a year, of the village of Mālpur, some service land yielding about Rs. 300 granted by the Rājpīplā State (now continued by the Government of Bombay) and from the sale of the oil offerings. On *Āso vad* 14th (October) or *Kāḷi Caudas* every year a fair, attended by 400 to 500 people, is held in honour of the image.

VAGRA.

Vāgra (21° 50′ N, 72° 53′ E; p. 2,856) is the headquarters of the Vāgrā Taluka. It is also a railway station on the Samni-Dahej line.

VALIA

Vālīā (21° 50′ N, 73° 05′ E; p. 1,176) is the headquarters of the Vālīā peta and is 12 miles from Jhagaḍīā railway station.

SUPPLEMENT

TABLE No. 1

Statement showing total population including total number of literate persons in Broach district according to 1961 census (Provisional)

Total Population	Males	Females
892241	458260	433981

Total literates	Literate persons	
	Males	Females
305129	212654	92475

OIL FIND IN ANKLESHWAR

The origin of oil is attributed to the remains of tiny, marine creatures deposited on the beds of ancient seas several hundred years ago. The remains of dead marine creatures settled down embedded into natural hydro carbons which migrated in rocks of high porosity and trapped and accumulated to form oil pools under certain geological conditions. It is tertiary rocks which contain oil in Gujarat State. Such tertiaty rocks are exposed in Surat and Broach districts between the mouths of the rivers Tapi and Narmada. Geophysists of the Geological Survey of India carried out systematic geophysical survey of the Ankleshwar area and located suitable and favourable structures underneath which oil was found.

Of late as a result of the efforts of the Oil and Natural Gas Commission, Government of India, assisted by foreign experts, oil was discovered at Digas village in Ankleshwar area. It is felt that it will be commercially possible to obtain oil from this area. Till now (1961) drilling operations have been carried out in nine villages. In well No. 8 oil was struck at a depth of 1350 metres. It is stated that the oil struck in Ankleshwar area is of superior quality and is free from any contents of wax. However, the actual quantity of oil has still not been ascertained. According to an empirical estimate it is felt that nearly 40 million tons of oil will be available from this region.

The Government of India are also contemplating the installation of a refinery to refine the oil. The actual place of location of the refinary is likely to be either in this district or in Kaira district where also oil is reported to have been struck.

NARMADA RIVER VALLEY PROJECT

The Narmada River Valley Project inaugurated on 5th April, 1961, will be the biggest river project in Gujarat State and one of the major river projects in India. The whole project which will cost about Rs. 93 crores is divided into two stages and the first Rs. 43 crore stage is expected to be completed by 1968 bringing about 5.40 lakh acres of land of Broach district and 4.57 lakh acres of the adjoining Baroda district under cultivation.

During the first stage a multipurpose dam will be constructed across the river Narmada, near village Navagam, about 15 miles from Rajpipla. Actual construction of the dam is expected to start in 1962. The total length of the dam will be about 5000 feet and more than half of it will consist of spillway portion. It will be 205 feet high with 45 tainter gates. The length of the main canal will be 100 miles while that of its branches will be 112.86 miles.

The gross command area of the project is 13.3 lakh acres, the culturable command area 11 lakh acres and the irrigable command area about 10 lakh acres. The area to be irrigated will be 6.5 lakh acres in 'kharif' season and 3.5 lakh acres in 'rabi' season. Additional food production of about 3,35,000 tons is estimated as a result of the project.

The second stage of the project which will be taken into hand after the completion of the first, probably in 1968-69, will cost about Rs. 50 acres and is estimated to irrigate about 17 lakh acres of land. It will also generate hydro electric power estimated at 3,75,000 k.w. continuous or 6,25,000 k.w. at 60 percent load factor.

The entire project will thus remain a great asset not only to the district but to the whole State and will go a long way in reducing food deficit in the country and in eliminating power shortage and controlling flood waters in Gujarat State.

PROGRESS MADE UNDER SECOND FIVE YEAR PLAN (1956-61)

An attempt is made in the following paragraphs to give a brief idea about various developmental schemes relating to agriculture in the Second Five Year Plan.

In order to increase agricultural production, agronomic practices such as scientific dry farming, use of improved seeds manures and fertilisers have been adopted.

(1) *Seed Schemes* : Schemes of multiplication and distribution of seeds were introduced during first Five Year Plan and were further extended during Second Five Year Plan. Seven seed multiplication farms, one each at Jambusar, Samni, Broach, Ankleshwar, Hansot, Jhagadia and Dediapada were established. Each Farm consisted of 25 acres. Noticeable progress was made in the field of research work to evolve a strain of cotton with a longer staple than that of Digvijay cotton.

(2) *Manures and fertilisers* : Continued emphasis on the use of manures and fertilisers is evident in the schemes of Second Five Year Plan. Till 1958-59, 242 tons of Urea, 345 tons of ammonimum sulphate and 60 tons of ammonimum sulphate nitrate were distributed to cultivatiors.

(3) *Crop protection Schemes* : Under these schemes, till 1958-59, 15692 lbs. of Gammaxene, 3000 lbs. of sulphur, 103 lbs. of mercury compound and 250 lbs. of zinc phosphite were supplied to cultivators.

(4) *Minor Irrigation Schemes* : The minor irrigation programme of the district covers mostly eastern area of the district. Mokhadi Badhara and Paji pura weir irrigation Schemes are under execution.

(5) *Major Irrigation Scheme* : A very high priority is accorded to the development of water resources of the district for the purpose of irrigation and generation of electric power. The Narmada project which consists of construction of a dam across Narmada is the major project an account of which has been given separately.

(5) *Forest and other schemes* : The development and utilisation of forest resources is an intergral part of the programme of optimum land utilisation. Schemes relating to development of forest include development of new forests, afforestation in denuded areas and providing communication facilities to inaccessible areas. In 1958-59, 244 acres in Vagra were covered under the scheme of afforestation. Under the Scheme of forest nurseries, till 1958-59, five nurseries were set up.

TABLE No. 1

Statement showing area in acres under important crops in Broach District for the year 1958–59

(00 Acres)

	1958–59
Cereals—	
Jowar	1460
Wheat...	525
Rice	628
Other cereals	157
Bajri	229
Total ...	2999
Pulses—	
Tur	228
Others...	548
Total ...	776
Oilseeds—	
Groundnut	311
Castorseed	49
Sesamum	47
Others	24
	431
Fibres—	
Cotton	5688
Other fibres	4
	5692
Tobacco	21
Sugarcane	5
Fruits and Vegetables	98
Condiments and Spices	12
Fodder	1048

TABLE No. 11

Statement showing cultivated and uncultivated area in 1958-59.

Taluka	No. of Villages	Total Geographical area	Cultivated Area: Gross cropped Area	Cultivated Area: Area cropped more than once	Cultivated Area: Net area sown
1 Amod	55	1,14,895	94,005	129	93,876
2 Ankleshwar	58	1,02,364	88,772	3,559	85,163
3 Broach	105	1,61,716	1,30,777	96	1,30,681
4 Dediapada	264	2,55,178	52,015	66	51,949
5 Hansot	47	98,548	62,542	173	62,369
6 Jambusar	83	2,46,887	1,66,375	1,290	1,65,085
7 Jhagadia	169	2,00,783	1,30,230	177	1,30,053
8 Nandod	227	2,79,494	12,3195	52	1,23,143
9 Sagbara	114	81,628	32,296	9	32,287
10 Valia	102	1,27,059	1,02,132	1,402	1,00,730
11 Vagra	69	2,22,771	1,29,930	79	1,23,851
	1,293	18,91,323	11,12,219	7,032	11,05,187

TABLE No. II

Statement showing cultivated and uncultivated area in 1958-59 (continued)

Taluka	Forest	Uncultivated area						
		Barren and unculturable lands	Land put to non-agricultural uses	Culturable waste	Permanent pastures and grazing grounds	Land under Misce. Trees, Crops and groves not included in area sown	Other fallows	Total Uncultivated area
1 Amod ...	—	11,733	6,428	158	1,898	—	802	21,000
2 Ankleshwar ...	—	9,405	944	677	5,222	—	896	17,144
3 Broach ...	—	1,791	26,255	457	—	—	2,314	30,817
4 Dediapada ...	1,22,656	61,661	5,686	8,535	67	—	3,636	2,02,241
5 Harsot ...	—	27,450	38	1,503	6,783	—	271	36,045
6 Jambusar ...	—	55,282	--	5,839	19,825	—	144	81,090
7 Jhagadia ...	28,964	27,883	1,569	2,624	8,888	—	802	70,730
8 Nandod ...	60,828	79,895	15	3,541	10,000	—	1,038	44,783
9 Sagbara ...	32,981	14,485	810	669	—	—	—	38,945
10 Valia ...	6,511	8,027	1,270	5,979	3,472	205	865	27,728
11 Vagra ...	—	42,893	1,052	35,277	12,572	—	805	92,599
District Total ...	2,51,940	3,40,505	44,067	65,259	68,727	205	11,573	6,63,122

TABLE No. III

Acreage under different crops in Broach district during year 1958-59

Type of crops	Amod	Anklesh-war	Broach	Dediapada	Hansot	Jambusar	Jhagadia	Nandod	Sagbara	Valia	Wagra	District Total
Cereals ...	14,696	16,408	18,597	26,228	17,213	48,308	24,583	47,463	17,571	33,447	37,938	3,02,452
Pulses ...	13,320	3,079	16,498	4,499	3,329	5,256	5,998	6,309	3,196	3,709	15,359	80,552
Sugar crops.	—	—	—	—	—	—	4	44	7	1	—	56
Fruits and Vegetables.	249	4,010	1,967	15	72	228	2,485	537	34	124	85	9,806
Fibres ...	58,261	44,107	82,263	12,403	32,600	96,789	65,065	53,257	8,742	45,621	70,239	5,69,349
Oil seeds ...	336	8,151	340	1,009	2,248	3,643	10,835	5,971	2,417	5,682	226	40,855
Drugs and Narcotics.	66	506	276	5	38	155	825	255	—	42	78	2,216
Condiments and spices.	—	—	6	20	733	118	104	80	83	59	21	1,224
Fodder crops.	7,040	12,373	10,148	1,836	6,296	11,878	20,331	9,309	246	13,447	5,984	1,04,888

TABLE No. IV

Area in acres under cereals in each taluka of Broach district in 1958-59

Type of Cereals	Amod	Anklesh-war	Broach	Dediapada	Hansot	Jambusar	Jhagadia	Nandod	Sagbara	Valia	Wagra	District Total
Rice ...	1,048	1,309	1,137	13,118	641	6,000	8,200	11,574	8,326	11,350	167	62,870
Wheat ...	2,403	2,106	1,742	66	4,158	20,159	551	46	378	591	20,340	52,540
Jowar Kharif.	—	2,751	96	860	7,440	—	975	5,579	35	8,762	220	26,718
Jowar Rabi ...	10,504	10,155	15,499	4,537	4,495	12,385	12,101	15,980	6,786	11,407	15,492	119,341
Total ...	10,504	12,906	15,595	5,397	11,935	12,385	13,076	21,559	6,821	30,169	15,712	1,46,059
Bajri ...	595	26	29	39	479	7,696	1,120	10,884	63	368	1,650	22,949
Ragi ...	—	—	—	—	—	—	—	—	—	—	—	—
Maize ...	—	20	9	868	—	24	155	1,266	164	152	—	2,649
Kodra ...	144	40	94	2,841	—	2,000	1,210	1,612	1,309	544	60	9,854
Other cereals.	—	1	—	1,732	—	15	271	522	434	273	9	3,257
	14,696	16,408	18,597	26,228	17,213	48,308	24,583	47,463	17,571	33,447	37,938	3,02,452

TABLE No. V

Area in acres under pulses in each taluka of Broach district in 1958-59

Serial No.	Taluka	Total Pulses
1.	Amod	13,320
2.	Ankleshwar	3,079
3.	Broach	16,498
4.	Dediapada	4,499
5.	Hansot	3,329
6.	Jambusar	5,256
7.	Jhagadia	5,998
8.	Nandod	6,309
9.	Sagbara	3,196
10	Valia	3,709
11	Vagra	15,359
		80,552

TABLE No. VI

Area in acres under oilseeds in each taluka of Broach district in 1958-59

	Amod	Anklesh-war	Broach	Dediapada	Hansot	Jambusar	Jhaga-dia	Nandod	Sagbara	Valia	Vagra	District Total
Edible oilseeds												
Ground Nut ...	208	7,876	142	433	2,092	10	9,400	5,257	251	5,436	29	31,134
Sesamum	112	240	137	291	152	2,183	800	593	50	184	45	4,787
Mustard	16	—	1	—	—	—	2	—	—	—	—	19
Non-edible oilseeds												
Castor	—	35	60	285	4	1,450	628	121	2,116	62	152	4,913
Total oilseeds ...	336	8,151	340	1,009	2,248	3,643	10,835	5,971	2,417	5,682	226	40,855

TABLE No. VII

Area in acres under Drugs and Narcotics in each taluka of Broach district in 1958-59

Taluka	Tobacco	Other Drugs and Narcotics	Total Drugs and Narcotics
Amod	—	66	66
Ankleshwar	506	—	506
Broach	274	2	276
Dediapda	5	—	5
Hansot	38	—	38
Jambusar	155	—	155
Jhagadia	825	—	825
Nandod	255	—	255
Sagbara	—	—	—
Valia	42	—	42
Wagra	78	—	78
	2,148	68	2,216

TABLE No. VIII

Area in acres under condiments and spices in each taluka of Broach district in the year 1958-59

Taluka	Total condiments and Spices
Amod	—
Ankleshwar	—
Broach	6
Dediapada	20
Hansot	733
Jambusar	118
Jhagadia	104
Nandod	80
Sagbara	83
Valia	59
Wagra	21
	1,224

TABLE No. IX

Area in acres under sugar crops in each Taluka of Broach district in 1958-59

Taluka	Sugar cane	Other sugars	Total sugars
Amod	—	—	—
Ankleshwar	—	34	34
Broach	—	—	—
Dediapada	—	—	—
Hansot	—	—	—
Jambusar	—	—	—
Jhagadia	4	—	4
Nandod	44	—	44
Sagbara	7	—	7
Valia	1	—	1
Wagra	—	—	—
District Total ...	56	34	90

TABLE No. X

Area in acres under fibres in each taluka of Broach district in 1958-59

Taluka	cotton	Other fibres	Total fibres
Amod	58,258	3	58,261
Ankleshwar	44,107	—	44,107
Broach	82,263	—	82,263
Dediapada	12,163	240	12,403
Hansot	32,558	42	32,600
Jambusar	96,789	—	96,789
Jhagadia	65,000	5	65,005
Nandod	53,217	40	53,257
Sagbara	8,684	58	8,724
Valia	45,610	11	45,621
Vagra	70,239	—	70,239
District Total...	5,68,888	459	5,69,347

TABLE No. XI

Area in acres under vegetables and fruits in each taluka of Broach district in the year 1958–59

Taluka	Fruits and Vegetables
Amod	249
Ankleshwar	4,010
Broach	1,967
Dediapada	15
Hansot	72
Jambusar	228
Jhagadia	2,485
Nandod	537
Sagbara	34
Valia	124
Vagra	85
District Total ...	9,806

TABLE No. XII

Area in acres under fodder crops in each taluka of Broach district in 1958-59

Taluka	Fodder crops
Amod	7,040
Ankleshwar	12,373
Broach	10,148
Dediapada	7,836
Hansot	6,296
Jambusar	11,878
Jhagadia	20,331
Nandod	9,309
Sagbara	246
Valia	13,447
Vagra	5,984
District Total ...	1,04,888

TABLE No. XIV

Area of food crops irrigated in each taluka of Broach district in the year 1958-59.

Taluka	Rice	Wheat	Jowar	Sugar Cane	Other food Crops	Total food crops
Amod ...	—	3	240	—	327	470
Ankleshwar	—	135	—	—	321	456
Broach ...	43	65	348	—	540	996
Dediapada	50	3	22	—	—	75
Hansot ...	641	—	—	—	—	641
Jambusar	—	—	—	—	177	177
Jhagadia ...	628	346	20	4	1,112	110
Nandod ...	37	46	—	44	403	530
Sagbara ...	—	10	—	7	82	99
Valia ...	612	21	—	1	149	783
Wagra ...	—	20	201	—	113	334
District Total	2,011	649	831	56	3,124	6671

TABLE No. XIV

Net area irrigated by different sources of irrigation in Broach district in 1958-59

Taluka	Government canals	Private canals	Wells	Tanks	Other sources	Total area irrigated	Total
Amod ...	...	...	1,385	...	...	1,385	1,385
Ankleshwar ...	...	...	120	...	737	857	857
Broach ...	490	...	1,926	...	...	2,416	2,416
Dediapada ...	...	...	150	...	...	150	150
Hansot ...	...	...	—	641	...	641	641
Jambusar ...	...	...	177	...	...	177	177
Jhagadia ...	...	...	3,276	...	...	3,276	3,276
Nandod ...	...	...	583	...	...	583	583
Sagbara ...	...	...	111	...	...	111	111
Valia	...	...	150	633	...	783	783
Vagra	...	...	1,975	...	...	1,975	1,975
District Total ...	490		9,835	1,274	737	12,354	12,531

TABLE No. XV

Quinquennial Statement of holdings (talukawise) of Broach district for the year 1957-58.

	Acre Groups						
	Upto 5 acres	Over 5 and upto 15 acres	Over 15 and upto 25 acres	Over 25 and upto 100 acres	Over 100 and upto 500 acres 5	500 acres and above	Total for all groups
AMOD							
Number of persons	4,377	2,434	988	503	10	1	8,313
Area held in acres—							
Khalsa	12,336	18,597	17,326	21,022	2,134	737	72,152
Inam	969	1,585	147	193	—	—	2,694
ANKLESHWAR							
Number of persons	5,591	3,237	832	458	26	—	10,144
Area held in acres—							
Khalsa	13,106	30,382	14,714	15,975	6,033	—	80,210
Inam	947	1,268	806	—	—	—	3,021
BROACH							
Number of persons	10,988	4,129	1,011	891	33	—	17,053
Area held in acres—							
Khalsa	21,776	31,773	23,592	31,366	4,244	—	1,13,889
Inam	3,186	1,352	364	30	—	—	4,932

HANSOT							
Nnmber of persons ...	4,078	2,042	425	262	5	—	6,812
Area held in acres—							
Khalsa	8,692	17,058	9,796	4,813	528	—	40,887
Inam	1,105	1,319	—	—	—	—	2,424
VAGRA							
Number of persons ...	1,684	2,424	831	781	112	—	5,832
Area held in acres—							
Khalsa	8,628	27,660	14,790	27,400	16,712	—	95,190
Inam	1,616	1,929	794	202	228	—	4,769
JAMBUSAR							
Number of persons ...	9,776	4,703	1,180	930	26	3	16,618
Area held in acres—							
Khalsa	21,770	36,362	22,915	33,859	9,195	1,481	1,20,582
Inam	2,090	3,166	543	487	13	1,374	7,673
NANDOD							
Number of persons ...	7,483	4,013	821	629	8	—	12,954
Area held in acres—							
Khalsa	17,507	33,143	14,863	35,703	1,508	—	1,02,724
Inam	272	62	268	29	—	—	621

TABLE XV (*contd.*)

	Acre Croup						
	Upto 5 acres	Over 5 and upto 15 acres	Over 15 and upto 25 acres	Over 25 and upto 100 acres	Over 100 and upto 500 acres	500 acres and above	Total for all groups
JHAGADIA							
Number of persons	10,794	5,135	1,232	843	29	—	18,033
Area held in acres—							
Khalsa	20,598	36,392	19,902	24,732	2,944	—	1,04,568
Inam	5,308	392	274	64	—	—	6,038
DEDIAPADA							
Number of persons	2,038	2,362	573	247	20	—	
Area held in acres—							4,240
Khalsa	6.270	21,761	10,744	8,611	3,869	—	51,255
Inam	48	622	641	303	36	—	1,650
SAGBARA							
Number of persons	691	1,229	360	183	3	—	2,466
Area held in acres—							
Khalsa	2,053	11,852	6,768	7,056	559	—	28,288
Inam	67	223	249	101	—	—	640
VALIA							
Number of persons	6,542	2,542	1,642	1,154	27	—	11,907
Area held in acres —							
Khalsa	16,463	15,602	24,496	33,235	8,348	—	98,144
Inam	1,152	626	448	138	—	—	2,364

TABLE No. XVI

Quinquennial statement of holdings in Government Rayatwari area of Broach district for 1957-58

Magnitude Groups	Class "A"			Class "B"			Class "C"			Total	
	Numbers of persons	Area held in acres		Numbers of Persons	Area held in acres		Numbers of Persons	Area held in acres		Number of Persons	Area held in acres
		Khalsa	Inam		Khalsa	Inam		Khalsa	Inam		
1. Upto 5 acres	52,353	1,12,619	12,716	3,030	6,550	423	8,659	30,022	3,621	64,042	1,65,951
2. Over 5 acres and upto 15 acres	27,507	2,19,779	9,753	1,076	8,194	324	5,737	49,806	2,468	34,320	2,90,324
3. Over 15 acres and upto 25 acres	8,029	1,49,008	3,160	582	9,315	149	1,284	28,446	948	9,895	1,91,226
4. Over 25 acres and upto 100 acres	5,462	1,90,537	1,467	298	25,825	127	711	29,057	390	6,471	2,47,403
5. Over 100 acres and upto 500 acres	236	33,866	238	18	6,473	36	45	10,736	2	299	51,351
6. Over 500 acres	4	1,037	—	—	—	—	1	2,319	1,374	5	47,301
Total ...	93,591	7,06,846	27,534	5,004	56,357	1,059	16,437	1,50,386	8,803	1,15,032	9,50,985

Class "A":—Those persons who cultivate land themselves with or without the help of hired labour.

Class "B":—Those persons who do not cultivate land themselves, but supervise and direct cultivation by labourers or farm servants.

Class "C":—Those who receive rent but do not directly or indirectly take part in cultivation.

PROGRESS MADE UNDER SECOND FIVE YEAR PLAN

Training Schemes

Training centres, production-cum-training centres and a peripatetic cotton schools are fuctioning in the district. These certres were started during Second Five Year Plan and are expected to provide training facilities to 120 students during the Plan period. A Manglore Tiles Training centre was started at Dhavoli and another similar Tiles Training centre is to be started at Ankleshwar.

Village Industries

The All India Khadi and Village Industries Commission have sponsored the scheme of development of industries such as Khadi, Palm Gur, Leather Training, Village Ghanis, Bee keeping, mat weaving, village pottery etc. Artisans engaged in these industries are trained. In order to establish artisans in their vocations, financial assistance by way of subsidies and grants is given under the scheme of financial assistance to cottage industries. During the year 1958-59 the total expenditure under the scheme was Rs. 25,270.

Handloom Industry

The All India Handloom Board which has been constistuted by the Government of India, proposed to organise 2 weavers societies and bring additional 200 looms into Co-operative field. Till 1958-59 400 looms were brought into Co-operative field and subsidy was granted to 4 Co-operative Societies. A loan was also granted to one Co-operative Society.

Organisation of Industrial Co-operation

Both the Government of India and State Government have decided to bring about economic development in the rural areas through the Co-operative movement. During the Second Five Year Plan, 7 industrial Co-operative Societies are to be organized. Out of these, 4 will be forest labour societies and three will be labour contract societies. Till 1958-59 Government contributed towards the share capital of 4 industrial Co-operative societies under the scheme of industrial Co-operative societies.

PROGRESS MADE UNDER SECOND FIVE YEAR PLAN (1955-61)

In this page an attempt is made to give a broad review of credit agencies coming within the perview of co-operation. Various other credit agencies such as Joint Stock banks, Industrial Finance Corporation etc. have not been included as they fall outside the scope of the Second Five Year Plan.

Co-operation

The Co-operation Programme has been formulated in accordance with the recommendations of Rural credit survey committee.

During the plan period it was proposed to establish 120 large-sized multipurpose societies and 25 small-sized societies. In 1958-59 under the scheme of extention of agricultural credit, 16 large sized and 24 small sized societies were organized; 3887 new members were enrolled and 6 societies were revitalised. Rs. 182 lakhs were advanced to societies by way of short-term loans, Rs. 6 lakhs by way of medium-term loans and Rs. 13 lakhs by way of long term loans.

Under the scheme of co-operative farming one farming society was organised. Government granted loans to two societies while it granted subsides to three societies. Government also contributed towards the share capital of one farming society.

Under the scheme of development of marketing loans were advanced to three agricultural produce market committees. Contribution towards the share capital of one marketing society was made by the Government.

Under the scheme of organizing processing societies two processing societies have been formed during 1956-57.

CO-OPERATIVE SOCIETIES

Agricultural Credit and Multipurpose Societies

During 1959-60, there were 347 societies with a membership of 44286 individuals. The total working capital was Rs. 5,06,89,521. Rs. 4,06,89,190 were advanced as loans to members while Rs. 4,39,44,090 were recovered from the members. The total amount of loans outstanding was Rs. 4,14,85,100.

Non-Agricultural Credit Societies

In 1958-59 there were 35 non-agricultural credit societies. The total number of members was 13659. The working capital of these societies amounted to Rs. 98,45,121. The loans advanced to members amount at Rs. 44,30,558 while amount repaid during the year was Rs. 35,48,741. Loans outstanding amounted to Rs. 42,62,825.

District Central Co-operative Bank, Broach

In 1958-59, 1516 individual members and 378 societies were members of the bank. The total working capital of the bank was Rs. 3,21,45,844. The total amount advanced as loans to members was Rs. 1,86,37,024 while the total loans repaid by the members was Rs. 1,86,64,226. The total outstanding loans were Rs. 1,61,19,642.

Primary Land Mortgage Bank, Broach

During 1957-58, 1817 persons were members of the bank. The share capital of the bank was Rs. 84,000 while its working capital was Rs. 14,62,000.

Transactions of Licensed Money-lenders

In 1959-60, there were 182 licensed money lenders in the district. The total amount of loans advanced to traders was Rs. 86,06,150 while to non-traders it was Rs. 10,13,225.

Tagavi, Advances, Recoveries and Outstanding

During 1958-59, Rs. 15,29,778 were advanced to cultivators while Rs. 4,11,290 were recovered. The total outstanding during the same year amounted to Rs. 43,72,367.

PROGRESS UNDER SECOND FIVE YEAR PLAN

The year 1959-60 witnessed a further progress in the work carried out by the market committee at Jambusar. There was a surplus of Rs. 6022.65, the income being Rs. 22,666.41 and expenditure Rs. 16,643·76. It derived an income of Rs. 6128·27 from the licence fee levied on market functioneries. The committee had a permanent fund of Rs. 60,113·76 (1959-60) and had invested about Rs, 52,000 in land, building etc. The committee decided to levy a cess of Rs. 0.03 nP. from 1958-59 on cotton instead of unginned cotton, as a relief measure to the co-operative societies transacting in cotton and secured an income of Rs. 5709.58 from cess on cotton.

The market functionaries, which constitute one of the main factors in a regulated market further increased as a result of the efforts of the market committee which could be seen from the following:

Categories	*1958-59*	*1959-60*
A Class Traders	133	134
B Class Traders	54	74
C Class Traders	373	403
General Commission	17	5
Weighmen	20	18

The transactions of the market committee mainly consist in procuring and selling the regulated agricultural commodities of the 2,48,595 B. Mds. of regulated commodities such as cotton, Sesamum, Tuver, Wheat, Jower and Bajri, arrived in the market and were sold, members. During 1958-59 and 1959-60, 4,68,355 B. Mds. and at a price settled by buyers and sellers.

The activities of the co-operative societies functioning within the area of the market is evident from the following table:—

Table No. 1

Statement showing transactions of co-operative societies.

Name of Co-operative Society	Arrivals in B. Mds. 1958-59	1959-60
Kalak Group Co-operative Multipurpose Society Limited.	26,824	8,916
Nobar Group Co-operative Multipurpose Society Limited.	16,040	9,274
Kavi Group Agricultural Produce Sale Society Limited.	3,193	15,908
Kangam Group Co-operative Multipurpose Society Limited.	9,212	5,547
Jambusar Taluka Co-operative Purchase and Sale Union Limited.	5,872	2,843
Sigam Group Co-operative Multipurpose Society Limited.	8,279	5,266
Anakhi Group Co-operative Multipurpose Society Limited.	4,059	10,251
Nahar Group Co-operative Multipurpose Society Limited.	6,019	3,882
Sarod Group Co-operative Multipurpose Society Limited.	3,708	3,737
Nadiad Group Co-operative Mlultipurpose Society Limited.	913	1,164
Tundaj Group Co-operative Multipurpose Society Limited.	484	88
Tundaj Khedut Mandal	887	—
Khanpur Group Co-operative Multipurpose Society Limited.	3,945	1,621
Jantral Group Co-operative Multipurpose Society Limited.	2,739	826
Kavi Group Co-operative Multipurpose Society Limited.	16,080	9,163
Kora Group Co-operative Multipurpose Society Limited.	2,843	2,013
Jambusar Group Co-operative Multipurpose Society Limited.	—	1,764
Islampura Group Co-operative Multipurpose Society Limited.	2,986	1,006

Table No. 1 (contd.)

1	2	3
Madafar Group Co-operative Multipurpose Society Limited.	960	607
Chhidra Group Co-operative Multipurpose Society Limited.	2,703	1,888
Uber Group Co-operative Multipurpose Society Limited.	3,000	1,251
Gajera Group Co-operative Multipurpose Society Limited.	3,485	1,312
Tankari Group Co-operative Multipurpose Society Limited.	4,564	9,651
Nondhana Group Co-operative Multipurpose Society Limited.	—	1,653
Amanpur Group Co-operative Multipurpose Society Limited.	—	1,681
Karmad Group Co-operative Multipurpose Society Limited.	—	1,804

REGULATED MARKET AT ANKLESHWAR

Further progress was achieved in execution of the scheme of regulated market due to the vigorous efforts made by Committee. The Sixth annual report (for 1958-59) of the market committee records with satisfaction the progress achieved during the year under report when more and more traders and agriculturists were brought under the working of Agricultural Produce Markets Act. The total number of licence holders was 148 which included traders, general commission agents, weighmen and labourers etc. and Rs. 4,230 was the income of the committee by way of licence fees. The income of the market committee was Rs. 12,159-20 and expenditure Rs. 10,705-62. Thus there was a surplus of Rs. 1,453-58 which was credited to the permanent fund maintained by the committee. Arrivals of regulated commodities during the year were as under:

Commodity	*B. Mds-Seers*
Cotton (unginned)	303233- 4½
Groundnut (unshelled)	37752-11½
Groundnut (shelled)	530-10
Lang	3431-12½

The activities of the co-operative trading societies, working within the market area of this market committee can be seen from the following table :—

TABLE No. II.

Statement showing the business transactions of Co-operative Trading Societies

Sr. No. 1	Name of the co-operative Society 2	Cotton (unginned) B. Mds. 3	Grondnut (unshelled) B. Mds. 4
1.	The Panoli Group Co-operative Agricultural Produce Processing & Marketing Society Limited, Panoli	50130-00	10722-26¼
2.	The Hansot Group Co-operative Agricultural Produce processing & Marketing Society Limited, Hansot	50818-00	3600-00
3.	The Bolav Group Co-operative Agricultural Produce Processing & Marketing Society Limited, Bolav.	33665-20	—

Table No. 2 (contd.)

Sr. No.	Name of the co-operative Society	Cotton (unginned) B. Mds.	Groundnut (unshelled) B. Mds.
1	2	3	4
4.	The Ankleshwar Taluka Co-operative Purchase & Sale Union Limited, Ankleshwar.	36168-00	218-25½
5.	The Hansot Group Co-operative Cotton Sale & Seed Supply Society Limited, Hansot.	79832-15	—
6.	The Shera Co-operative Better Farming Society Limited, Shera.	—	613-10
7.	The Ravindra-Karamali Group Co-operative Multipurpose Society Limited, Ravindra.	6660-00	3105-28
8.	The Mangrol Group Co-operative Multipurpose Society Limited, Mangrol.	—	—
9.	The Pardi-Indris Group Co-operative Multipurpose Society Limited, Pardi-Indris.	—	—
10.	The Valner Group Co-operative Multipurpose Society Limited, Valner.	—	—
11.	The Rohid Group Co-operative Multipurpose Society Limited, Rohid.	—	—
12.	The Bhadi Co-operative Multipurpose Society Limited, Bhadi.	—	963-38
13.	The Sajod Co-operative Multipurpose Society Limited, Sajod.	—	965-00
14.	The Diva Co-operative Multipurpose Society Limited, Diva.	—	3436-00
15.	The Diva Co-operative Credit Society Limited, Diva.	—	4647-00
16.	The Kondha Group Co-operative Multipurpose Society Limited, Kondha.	3436-00	—

TABLE No. I

Total length of roads according to the type of surface in Broach district as on 31st March, 1959

	Cement concrete	Black Topped	Water Bound Maca-dum	Lower Type	Total
Public Works Department	12.33	92.29	81.35	88.53	274.50
District Local Board ...	—	3.13	66.75	623.43	693.31
Total ...	12.33	95.42	148.10	711.96	967.81

TABLE No. II

Statement showing Imports and Exports of Broach port for the year 1958-59.

Commodity	Imports (tons)	Commodity	Exports (tons)
Building Material ...	2,000	Bamboo	2,795
Coconuts	1,000	Cotton seeds ...	3,303
Foodgrain and pulses	1,085	Foodgrains	650
Onions	700	Jaggery	33
Salt	1,130	Timber	96
General cargo ...	3,104	General cargo ...	1,223

TABLE No. III

Total number of Post-offices and Post and Telegraph offices in each taluka of Broach district as on 31-3-1959.

	Amod	Anklesh-var	Broach	Dediapada	Hansot	Jambusar	Jhaga-dia	Nandod	Sagbara	Vagra	Valia	District Total
Post-Offices.												
1. Branch Offices	15	12	35	3	5	22	11	11	2	14	9	139
2. Sub-offices ..	—	1	3	—	1	—	—	—	—	—	—	5
3. Head-Offices .	—	...	—	—	—	—	—	—	—	—	—	—
Post and Telegraph Offices.												
1. Branch Offices	—	—	—	—	—	—	—	—	—	—	—	—
2. Sub-offices ...	1	1	3	—	1	1	2	1	—	1	1	12
3. Head-Offices ...	—	—	—	—	—	—	—	—	—	—	—	—

PROGRESS UNDER SECOND FIVE YEAR PLAN (1956-61)

In respect of communications Broach district is very backward, specially the merged area of Rajpipla State have no outlets to the rail head or the market places. During the First Five Year Plan adequate attention was not paid to the construction activities. The tempo of construction activities went up at the end of first plan when strenuous efforts were made to undertake construction of large number of roads and bridges.

Roads and Bridges

During Second Five Year Plan Government decided to construct 221 miles and 6 furlongs of roads. It was also decided to improve 39 miles and 7 furlongs of roads. Till 1958-59 construction work of 17 bridges on these roads was undertaken. Out of the budget provision of Rs. 22·28 lakhs Rs. 20·85 lakhs have been spent on the scheme for construction and improvement of roads and bridges.

Ports

A scheme of constructing a new R. C. C. jetty and transit shed at Broach port is nearing completion. This is a piled jetty. The expenditure on the scheme in the year 1958-59 amounted to Rs. 1,3[illegible],389

DIRECTORY OF VILLAGES AND TOWNS

EXPLANATION OF COLUMN HEADINGS, SYMBOLS AND ABBREVIATIONS USED

1. The names of towns and villages are arranged in alphabetical order.

2. The distance, wherever shown is given in miles and furlongs.

3. In column I, the names of villages and towns are given both in English and Gujarati and the names of the taluka/peta to which the villages and towns belong have been shown against their respective names.

Following abbreviations have been used for showing the names of various talukas/petas of the district :—

AD.—Amod ;

AK.—Ankleshwar ;

BR.—Broach ;

DP.—Dediapada ;

HT.—Hansot ;

JB.—Jambusar ;

JD.—Jhagadia ;

ND.—Nandod ;

SR.—Sagbara ;

VG.—Vagra ;

VL.—Valia.

The English spellings are marked diacritically as under :—

ā—આ ; ī—ઈ ; e—એ ; ṛ—ઋ ; c—ચ્ ; ch—છ્ ; ṭ—ટ્ ; ṭh—ઠ્ ; ḍ—ડ્ ; ḍh—ઢ્ ;

n—ન્ ; ṅ—ઙ્ ; ñ—ઞ્ ; ṇ—ણ્ ; s—સ્ ; ś—શ્ ; ṣ—ષ્ ; ḷ—ળ્.

Unaccented vowel at the end of the syllable or word is often dropped

4. In column II, the direction of the villages and towns have been shown in relation to the taluka/peta headquarters. The following abbreviations have been used for indicating the direction :—

N.—North ;

S.—South ;

E.—East ;

W.—West ;

NE.—North East ;

NW.—North West ;

SE.—South East ;

SW.—South West.

5. In column VI, the bazar days have been shown under the following abbreviations :—

Sun.—Sunday.

Mon.—Monday.

Tue.—Tuesday.

Wed.—Wednesday.

Thu.—Thursday.

Fri.—Friday.

Sat.—Saturday.

6. In column VIII, the following abbreviations have been used for indicating the sources of drinking wa supply :—

w.—well.

rv.—river.

str.—stream.

spr.—spring

t.—tank.

pl.—pipe line.

o.—scarcity of water.

p.—pond.

7. In column IX, the following abbreviations and symbols are used :—

s' (school) ; [(h)—(high) ; (m)—(middle) ; (pr)—(primary)].

cs.—co-operative society ; [(c)—credit ; (fmg)—farming ; (i)—industrial ; (mis)—miscellaneous (mp)—multipurpose ; (sp)—sale and purchase ; (con)—consumers].

fr.—fair.

Ct.—Chaitra.

Vsk.—Vaishakh.

Jt.—Jaistha.

Asd —Ashadh

Sm.—Shravan.

Bdp.—Bhadrapad.

An.—Ashwin.

Kt.—Kartik.

Mrg.—Margashirsh.

Ps.—Paush.

Mg.—Magh.

Phg.—Phalgun.

Sud.—Suddha.

Vad.—Vadya.

Ur.—Urs.

tl.—temple.

M.—math.

mq.—mosque.

dg.—dargah.

dh.—dharmashala.

gym.—gymnasium.

ch.—chora.

lib.—library.

dp.—dispensary.

pyt.—panchayat.

mun.—Municipality.

DIRECTORY OF VILLAGES AND TOWNS

(G.C.P) L-A H 6577-1a

Serial No.	Village/Town name	Taluka abbreviation	Village/Town name in Gujarati	Direction from the Taluka/ Peta H. Q.	Travelling distance	Area (sq. miles)	Population	Households	Agricultural population	Post Office	Distance
1	Achālīyā	JD	અછાલીયા	NE;	11–0	1·5,	440;	88;	409	Umalla	1–0
2	Āchod	AD	આછોદ	W;	3–0	9·0;	2299;	465,	1956	Local	
3	Aḍādarā	AK	અડાદરા	E;	2–4	1·4;	241;	51;	227	Panoli	4–0
4	Aḍol	BR	અડોલ	N;	10 0	1·2;	349;	75;	281	Kisnad	2–4
5	Aḍol	AK	અડોલ	W.	4–0	3·7;	703;	123;	697	Sajod	3–0
6	Aḍvālā	AD	અડવાલા	N;	2–0	1.6;	327;	69;	303	Amod	2–0
7	Ājamanagar	AD	આજમનગર	E;	7 0	1·8;	128,	20;	100	Matar	1–0
8	Ākalavā	HT	આકલવા	W;	8–0	4·1;	330;	67;	328	Ilav	6–0
9	Akateśvar	ND	અકતેશ્વર	NE;	12 0	1·5;	497;	86;	472	Gardeshwar	1–0
10	Akhoḍ	VG	અખોડ	W;	14–0	3·5;	500;	100;	439	Pakhajan	4–0
11	Akuvāḍā	ND	અકુવાડા	W;	7–0	1 0;	226;	35;	160	Amletha	2–0
12	Alamāvāḍī	DP	અલમાવાડી	W.	8–0	1·1;	463;	70;	455	Dediapada	8–0
13	Alavā	HT	અલવા	S;	2–2	1·5;	287;	124;	279	Hansot	2–0
14	Aladar	BR	અલદર	N;	8 0	3·2;	1050;	208;	576		
15	Āloñj	AK	આલોંજ	S;	5–4	2·1;	512;	107;	498	Panoli	1–4
16	Āmadalā	ND	આમદલા	NE;	15–0	1·6;	826;	135;	820	Gardeshwar	5–0
17	Āmalajhar	JD	આમલઝર	E;	7–4	1·1;	530;	83;	394	Rajpardi	4–0
18	Amaleśvar	BR	અમલેશ્વર	NW;	10 0	7·5;	1739;	396;	1526	Broach	11–0
19	Amanpor Motā	JB	અમનપોર મોટા	N;	6–0	2·3;	798;	156;	794	Local	
20	Amanpor Nānā	JB	અમનપોર નાના	N;	6 0	1·2;	279;	60;	279	Amanpor Mota	
21	Amaraparā	ND	અમરપરા	W;	7–0	0·7;	96;	20;	96	Pratapnagar	5–0
22	Āmalī	ND	આમલી	S;	12 0	2·3;	138;	24;	135	Rajpipla	17–0
23	Āmbā	ND	આંબા	NE;	23–4	1·9;	59;	10;	54	Tanakhala	6–0
24	Āmbādevī alias Śiyālī	DP	આંબાદેવી ઉર્ફે શિયાળી	S;	12–0	0·5;	144;	23;	141		
25	Āmbāgām	SR	આંબાગામ	E.	11·0	0·7;	486;	65;	483	Korai	9–0
26	Āmbāgām	DP	આંબાગામ	E;	9·0	1·0;	41;	7;	41		
27	Āmbākhāḍī	JD	આંબાખાડી	E;	10–0	0·7;	76;	14;	73	Rajpardi	5–0

Railway St. ; Distance.		Weekly Bazar ; Bazar Day ; Distance.			Motor Stand ; Distance.		Drinking water facilities ;	Institutions and other information.
Umalla	1-0				Umalla	0 6	w	sl (pr) ; 2tl.
Amod	3-0	Amod	....	3-0	Amod	3-0	w	2sl (pr) ; pyt ; cs (c) ; tl ; mq ; ch ; lib ; dp.
Panoli	4-0						w ; t	cs (c); tl ; ch.
Varedia	1 4						w	sl (pr) ; tl ; mq ; dg.
Ankleshwar	6-0				Sajod	2-0	w ; t	sl (pr) ; cs (c, mis) ; tl ; dg ; dh.
Amod	2-0	Amod	....	2-0		0 4	w ; t	sl (pr) ; cs (c) ; tl ; dh ; ch ; lib.
Amod	7-0	Amod	...	7-0		0-4	w	tl ; dg.
Kim	16-0	Ilav	....	6-0	Ilav	7-0	w	sl (pr) ; tl .
Rajpipla	12-0						rv	tl ; dh ; Agateshwar Mahadev temple.
Pakhajan	4-0						w	sl (pr) ; cs (c) ; tl ; dg.
Kumasgam	1-0				Kumasgam	0-4	w ; str	sl (pr) ; tl.
Netrang	9-0						w; rv	sl (pr).
Ankleshwar	14-0	Hansot	....	2-0	Local		w ; t	2tl ; dg ; ch ; lib. sl (pr) ; cs (mp, fmg) ; 4tl ; dh; lib.
Panoli	1-4				Ankleshwar	4-0	w	sl (pr) ; cs (c); tl ; mq ; 2dg ; Mahadev temple.
Tanakhala	9-0					6-0	w; str	sl (pr) ; fr; phg; sud; 15.
Padwania	1-4				Rajpardi	4 0	w; str	sl (pr) ; ch.
Broach	11-0				Nawetha	3-0	w	2sl (pr) ; cs (c); 5tl; dg; dh; ch; lib; 3dp; Shankar Mahadev temple and its sacred tank.
Tundaj	3-0				Ghoriparal	1-2	w; t	sl (pr) ; 2tl ; M; mq ; dg; dh ; ch ; lib ; dp.
Tundaj	3-0				Ghoriparal	1-0	w	sl (pr) ; tl ; M ; dh ; ch.
Amletha	3 0				Lodhan	1-0	str	
Rajpipla	17-0					1-0	w	
Tanakhala	6-0						str	
					Dediapada	14-0	w; str	
Kavdi	9-0	Selamba	Sun.	3-0	Selamba	7-0	w	sl (pr).
					Dediapada	10-0	w	
Rajpardi	5-0						str	

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28	Āmbāvādī	DP	આંબાવાડી	S;	10-0	2·8;	498;	95;	467	Dediapada	10-0
29	Ambhel	VG	અંભેલ	W;	13-0	3·1;	455;	96;	385	Pakhajan	4-4
30	Ambhetā	VG	અંભેટા	SW;	22-0	5·8;	671;	130;	639	Dahej	2-0
31	Ambhetā	HT	અંભેટા	W;	0-6	3·7;	634;	71;	417	Hansot	2-0
32	Āmboli	AK	આંબોલી	W;	2-0	1·8;	344;	76;	340	Ankleshwar	1-4
33	Ambos	JD	આંબોસ	S;	14-0	2·3;	399;	65;	356	Dharoli	2-0
34	Āmdarā	BR	આમદરા	W;	9-0	1·7;	368;	79;	366	Broach	
35	Amīyār	SR	અમીયાર	S;	6-0	0·9;	32;	9;	32	Korai	13-0
36	Āmlethā	ND	આમલેથા	W;	6-0	2·8;	1544;	279;	1463	Local	
37	Āmod	AD	આમોદ	H.Q.		6·1;	7833;	1586;	2431	Local	
38	Āmod	HT	આમોદ	SE;	11-0	1·1;	280;	57;	277	Kosamba	3-0
39	Āmod	JD	આમોદ	E;	6-0	2·4;	320;	56;	314	Rajpardi	3-0
40	Amṛtpurā	AK	અમૃતપુરા	E;	5-4	0·8;	334;	57;	331	Mandva Bujarg	3-0
41	Āmlīpānī	DP	આમલીપાની	S;	4-0	0·3					
42	Aṇadharā	JD	અણધરા	S;	11-4	2·7;	429;	78;	331	Dharoli	3-0
43	Aṇakhi	JB	અણખી	E;	3-0	5·7;	1546;	325;	1370	Local	
44	Aṅdāḍā	AK	અંદાડા	E;	2-0	3·1;	1701;	340;	1418	Local	
45	Aṅdhār Kācalā	JD	અંધાર કાચલા	E;	3-4	0·6;	106;	25;	61	Jhagadia	2-0
46	Āndu	DP	આંદુ	S;	4-0	2·3;	103;	23;	103		
47	Aṅgāreśvar	BR	અંગારેશ્વર	E;	14-0	2·0;	835;	179;	727		
48	Aṇīādrā	HT	અણીઆદ્રા	SW;	5-4	1·4;	346;	71;	329	Ilav	3-0
49	Aṇījarā	ND	અણીજરા	E;	5-0	1·6;	365;	71;	346	Lachhras	2-0
50	Āñjaṇavāi	DP	આંજણવાઈ	W;	18-0	0·9;	87;	13;	80	Dediapada	18-0
51	Āñjoli	JD	આંજોલી	S	20-0	2·1;	496;	78;	492	Netrang	4-0
52	Ankaleśvar	AK	અંકલેશ્વર	H.Q.		1·2;	15275;	3470;	1562	Local	

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities.	Institutions and other information.
Kevdi Road. 12-0		Local	w	sl (pr) ; cs (fmg) ; ch ; dp.
Pakhajan 4-4			w	sl (pr) ; cs (c) ; 2tl ; dg.
Dahej 2-0		Dahej 1-4	w	sl (pr) ; cs (c) ; 4tl ; dg ; dh ; ch; lib.
Ankleshwar 14-0	Hansot 2-0	Hansot 1 0	w	sl (pr) ; mq ; dg.
Ankleshwar 2-4		Ankleshwar 1-4	w	tl.
Padwania 4-0		Dharoli 1-0	w ; rv	
Broach		Local	w	sl (pr) ; 3tl ; dg ; ch ; lib ; dp.
Kavdi 25-0	Selamba Sun. 4-0	Kodba 1-0	str	
Local		Local	w	sl (pr) ; cs (c) ; Moti Dewali fr. As. Vad. 14 ; 2tl ; 2dg ; ch ; Church.
Local	Local ...	Local	w	sl (2pr. h) ; cs (2c) ; Dassera fr. Janmashtami fr. ; 14tl ; 2M ; 4mq ; 8dg ; dh ; ch ; lib ; 6dp ; Peta H. Q. ; D. L. B. Bungalow ; Houses and Forts of Thakor of Amod.
Kosamba 3-0	Ilav 3-0	Sunevkalla 6-0	o ; str	sl (pr) ; tl ; mq ; dg.
Rajpardi 3-0			str	
Dadhal 2-0		Dadhal 2-0	w ; str	sl (pr) ; Pvt ; cs (c). Deserted.
Padwania 2-0			w	
Local		Jambusar 5-0	w	2sl (pr) ; cs (c) ; 2tl ; dh ; ch ; lib ; dp.
Ankleshwar 3-0		Local	w ; t	2sl (pr) ;cs (c) ; 3tl ; mq ; 2dg ; dh ; lib ; dp ; Church.
Damlai 1-0		Simdhara 2 0 Dediapada 10 0 Nikora 1-0	str t ; str rv	pvt. sl (pr) ; 3tl ; dh ; ch.
Ankleshwar 20-0	Ilav 3-0	1-4	w ; t	sl (pr) ; tl ; ch ; lib.
Rajpipla 6-0		Lachhras 2-0	w	tl.
Kevdi Road 9-0		Ambavadi 9-0	w	
Netrang 4-0		Netrang 2-0	w ; str	sl (pr) ; cs(c).
Local		Local	w	sl (3pr, 2m, h) ; Mun , cs (2c) ; Bharuchi naka—every Monday in Shrawan ; Hanmanvadi Hastitalav—every Monday in Shravan ; Surati Bhagol Asd. Sud.11 ; 20tl ; 5 M ; 10mq ; 8dg ; 6dh ; gym ; ch ; 2lib ; 8dp ; Church ; Taluka H. O.

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53 Ānkot VG આંકોટ ...	SE;	3-0	2·1;	300;	59;	207	Vagra	3-0
54 Aṉor AD આણોર ...	S;	6-0	3·9;	960;	212;	824	Amod	4-0
55 Aragāmā VG અરગામા	SE;	5-0	2·5;	477;	90;	307	Vagra	6-0
56 Areṭhī VL અરેઠી ...	E;	18-0	1·4;	213;	38;	208	Netrang	6-0
57 Arēṭhī DP અરેઠી ...	E;	12-0	1·7;	123;	21;	119	Dediapada	8-0
58 Asā JD અસા ...	N;	16-4	4·5;	1273;	257,	1191	Panetha	2-0
59 Āsanavaḍ JB આસનવડ...	W;	8-0	1·5;	204;	49;	177	Tankari	1-0
60 Asanāvī JD અસનાવી ...	S;	15-0	3 0;	328;	61;	328	Netrang	4-0
61 Āsaramā HT આસરમાં ...	SE;	8 4	2·1;	472;	105;	469	Ilav	2-0
62 Asarasā JB અસરસા ...	W;	15 0	4 2;	284;	59;	283	Tankari	4-0
63 Āsnerā AD આસનેરા ...	S;	4-0	3·4;	407;	92;	347	Amod	4-0
64 Āstā HT આસ્તા ...	E;	1-4	3 0;	552,	125;	471	Shera	1-0
65 Asurīā BR અસુરીઆ ...	N;	9 4	0·8	150;	33;	76	Nabipur	1-0
66 Alāḍar VG અલાદર ...	W;	15-0	8 3·	405;	76;	376	Pakhajan	6-0
67 Āṭakhol VL આટખોલ ...	E;	17-0	1·5;	286;	63;	275	Netrang	4-0
68 Atālī VG અટાલી ...	SW;	13-0	3 4.	816;	193;	781	Pakhajan	6-0
69 Aurangpur Tīmbī JB ઓરંગપુર ટીંબી	S;	8-0	0·5;	68,	15;	64	Sarod	4-0
70 Avādar AK અવાદર	E;	7-0	1 8;	503,	97;	497	Jitali	2-4
71 Avidhā JD અવિધા ...	N;	4 4	3·2;	2969;	538,	1769	Local	
72 Babā-Dokaṭī DP બાબા દોકટી	NW;	18-0	1·4					
73 Bābadā DP બાબદા ...	S;	10-0	2 5;	235;	33;	222	Kevdi	6-0
74 Badākuī VL બદાકુઈ ...	E;	10-0	0 1					
75 Badalpur VG બદલપુર...	NW;	8-0	2·3;	310;	64;	265	Pahaj	3-0
76 Bāḍodarā HT બાડોદરા ...	W;	3-4	1·7;	488,	85;	485	Hansot	3-0
77 Baganīovaḍ SR બગનીઓવડ	S;	10-0	0·3;	83;	12;	79	Korai	16-0
78 Bākarol AK બાકરોલ ...	E;	4-4	2·8;	443;	99;	433	Kosamadi	1-4

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities.	Institutions and other information.
Vagra 3-0		Local	w	sl (pr) ; cs (c) ; 2 tl ; dg ; dh ; ch.
Tanchha 2-0	Amod 4-0	Tanchha 2-0	w	sl (pr) ; cs (mp) ; Kankeshwar-Samapanchmi ; 3 tl ; dg ; lib ; dp.
Dayadara 2-0		Local	w	sl (pr) ; cs (c) ; tl ; mq ; 4 dg ; ch.
Netrang 6-0		Local	w ; str	
Netrang 24-0		Dediapada 6-0	w	
Malsar 2-0			rv	sl (pr) ; cs (mp) ; 6 tl ; 3 dg ; dh.
Jambusar 10-0		Tankari 1-0	w	sl (pr) ; tl.
Goratia 2-0			str	
Kosamba 7-0	Ilav 2-0	Sahol 1-0	w ; t ; rv	sl (pr) ; tl ; lib.
Jambusar 14-0		Kapuria 3-0	t	cs (c) ; tl ; m ; dg.
Tanchha 2-0		Nahier 1-4	w ; t	sl (pr) ; pyt ; cs (c) ; 2 tl ; dg ; ch ; lib.
Ankleshwar 13-0	Hansot 1-0	Hansot 1-0	w ; t	sl (pr) ; 3 tl ; ch.
Nabipur 1-0			w	sl (pr) ; mq ; dg.
Sambheti 5-0			w ; t	sl (pr) ; 2 tl ; dg ; ch.
Netrang 4-0		Netrang 5-0	w ; rv	
Pakhajan 6-0		Local	w ; t	sl (pr) ; cs (mp) ; tl ; M ; mq ; dg ; ch ; dp.
Kora 2-0			w	
Dadhal 3-0		Dadhal 3-0	w ; rv	sl (pr) ; cs (c) ; *Akik* stone quarries.
Rajpardi 2-0		Simdhara 1-4	w	sl (2pr, h) ; cs (c) ; 10 tl ; dh ; ch ; lib. ; 3dp.
				Deserted.
Kevdi Road 6-0		Dediapada 12-0	w ; str	
				Deserted.
Vagra 6-0		Chanchvel 1-4	w	sl (pr) ; cs (mp) ; 2 tl ; ch.
Ankleshwar 3-2	Hansot 3-0	Hansot 3-0	w	sl (pr) ; tl ; ch.
Khanwara 18-0	Jodwan Mon. 4-0	Salamba 11-0	w	
Ankleshwar 4-0		Ankleshwar 4-0	w	sl (pr) ; tl ; dg , Church.

Serial No. ; Village/Town name ; Taluka abbreviation ; Village/Town name in Gujarati.	Direction from the taluka/ peta H. Q. ; Travelling distance.	Area (sq. miles) ; Population ; Households ; Agricultural population.	Post Office ; Distance.
79 Bākarolī BR બાકરોલી ...	NW; 9–0	0·9; 32; 6; 32	Dayadra 1–0
80 Bākarapor-Tīmbī JB બાકરપોર-ટીંબી ...	W; 10-0	2·1; 101; 23; 101	Tankari 3–0
81 Bakhar ND બખર ...	NE; 17–2	1·3; 199; 26; 192	Gardeshwar 6–0
82 Bal DP બલ ...	NE; 9–0	3·3; 121; 18; 121	Dediapada 9–0
83 Baladavā VL બલદવા ...	E; 16–0	2·0; 564; 99; 564	Netrang 6–0
84 Balesar JD બલેસર ...	S; 15–0	1·2; 192; 36; 162	Dharoli 6–0
85 Bālotā HT બાલોતા ...	S; 9–0	5·1; 749; 153; 711	Ilav 2–0
86 Bāmaṇ-Phalīā ND બામણ ફળીઆ	S; 11–0	0·8; 134; 26; 130	Pratapnagar 3–0
87 Bāmallā JD બામલ્લા ...	E; 12–0	2·9; 674; 122; 664	Umalla 1–4
88 Baṃbusar BR બંબુસર ...	NE; 9–0	1·1; 289; 60; 276	Nabipur 1–0
89 Bāṇḍīsarēvāṇ DP બાંડીસરેવાણ	SW; 7–0	2·0; 208; 36; 196	
90 Baṇṭāvāḍī DP બંટાવાડી	E; 6–0	2·9; 32; 5; 32	
91 Baraṃbā DP બરંબા ...	SW, 4–0	2·7	
92 Barasaṇ DP બરસાણ ...	S; 12–0	0·2; 100; 12; 98	
93 Bayaḍi DP બયડી ...	W; 4–0	1·6; 73; 15; 73	Dediapada 5–0
94 Bebār DP બેબાર ...	NE; 12–0	3·3; 110; 19; 103	Dediapada 10–0
95 Beḍāpāṇī SR બેડાપાણી...	S; 11–0		
96 Beḍolī VL બેડોલી ...	NE; 15–0	0·7; 197; 41; 193	Netrang 1–4
97 Bej DP બેઝ ...	N; 17–0	0·5; 145; 20; 139	Rajpipla 11–0
98 Besaṇā DP બેસણા ...	NE; 3–0	2·4; 249; 39; 231	Dediapada 3–0
99 Bhacarvāḍā ND ભચરવાડા	NW; 2–0	2·3; 701; 141; 589	Rajpipla 1–4
100 Bhaḍakodarā AK ભડકોદરા	E; 2–2	2·7; 325; 75; 319	Ankleshwar 2–0
101 Bhaḍakodarā JB ભડકોદરા	W; 12–0	7·4; 1474; 294; 1374	Local
102 Bhadām ND ભદામ ...	N; 2–0	4·1; 1947; 367; 1727	Local
103 Bhāḍbhūt BR ભાડભૂત ...	W; 10–0	3·5; 1625; 343; 499	Local
104 Bhādī AK ભાદી ...	E; 6-0	3·0; 965; 199; 875	Panoli 3–0
105 Bhaḍkuvā DP ભડકુવા ...	SE, 9–0	0·05	
106 Bhādoḷ SR ભાદોળ ...	E; 8–0	0·4; 145; 24; 141	Korai 9–0

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities.	Institutions and other information.
Dayadra 1-0		Dayadra 1-0	w	Fair at Dargah any time once during the year ; mq; dg.
Kora 6-0		Tankari 3-0	w; t	
Tanakhala 6-0			w; t	
Rajpipla 25-0		Dadiapada 9-0	t; str	
Netrang 6-0		Netrang 2-0	str	
Goratia 1-4			w; sp	sl(pr).
Kim 11-0	Ilav 2-0	Ilav 1-4	w	sl(pr); pyt; cs(c); 2tl; lib.
Juna Rajuvadia 3-0		Pratapnagar 3-0	w	
Umalla 1-4		Umalla 1-0	str	sl(pr) ; tl ; dg ; ch.
Nabipur 1-0			w	sl(pr); tl; mq; dg; ch.
		Nighat 3-0	w; str	ch.
		Dediapada 9-0	str	
				Deserted.
		Ambavadi 6-0	str	
Netrang 7-0		Yal 5-0	w	
Rajpipla 22-0			rv; sp	
				Deserted.
Netrang 1-4		Local	w; str	
Rajpipla 11-0		1-0	rv	
Netrang 5-0		Dediapada 3-0	w; str	
Rajpipla 1-4		Rajpipla 2-0	w; rv	sl(pr) ; 2tl.
Ankleshwar 2-0		Ankleshwar 2-0	w	sl(pr) ; tl ; dg ; ch.
Kora 8-0		Local	w	sl(pr); 2mq; dg; ch.
Rajpipla 2-0		Local	w; rv	2sl(pr) ; 5tl; dh; ch; lib.
Broach 8-0		Local	w	2sl(pr); cs(2c); fr. Kt Sud 15, Ct. Sud. 15, Adhik Bdp; 15tl; 2M; mq; dg; dh; lib; 4dp.
Panoli 3-0		Ankleshwar 5-4	w	sl(pr); cs(mis) ; 3dg; ch.
				Deserted.
Kavdi 32-4	Selamba Sun. 3-0	Selamba 4-0	str	

Serial No.; Village/Town name; *Taluka abbreviation*; Village/Town name in Gujarati.	Direction from the taluka/peta H. Q.: Travelling distance.	Area (sq. miles); Population. Households: Agricultural population.	Post Office; Distance.
107 Bhālod JD ભાલોદ ...	N; 11-0	4·1; 2579; 587; 1558	Local
108 Bhamāḍīā VL ભમાડીઆ	SE; 8-0	1·3; 538; 95; 493	Bharadia 2-0
109 Bhamarīsāmar SR ભમરીસામર	S; 4-0	0·1; 69; 13; 69	Korai 15-0
110 Bhāṇadarā ND ભાણદરા	E; 8-0	0·6; 86; 18; 85	Gardeshwar 3-0
111 Bhāngorīā VL ભાંગોરીઆ	E; 17-0	0·6; 210; 34; 209	Netrang 5-0
112 Bhāṇakhētar JB ભાણખેતર	S; 1-0	0·6; 243; 58; 217	Jambusar 1-0
113 Bharāḍā DP ભરાડા ...	S; 13-0	0·8; 236; 42; 236	Netrang 14 0
114 Bharāḍā (Pānutāvāḷū) DP ભરાડા (પાનુટાવાળું)	SW 16-0	1·5; 130; 23; 116	Dediapada 16-0
115 Bharāḍā alias Bēladā DP ભરાડા ઉર્ફે બેળદા	S; 12-0	1·5; 65; 14; 53	
116 Bharāḍīā alias Vānkāsāg VL ભરાડીઆ ઉર્ફે વાંકાસાગ	SE; 7-0	0·9; 769; 131; 738	Local
117 Bharaṇ AK ભરણ ...	E; 12 0	6·1; 589; 138; 576	
118 Bharthāṇ BR ભરથાણું ...	NL; 10 0	1·6; 404, 80; 394	Nabipur 5-0
119 Bharūc (Broach) BR ભરૂચ	H.Q.	5·3; 62729; 13486; 2145	Local
120 Bhāt DP ભાટ ...	E; 15 0	1·3; 30; 6; 29	Dediapada 12-0
121 Bhātpur DP ભાટપુર ...	SW; 10 0	1·0; 309; 42; 298	Dediapada 10 0
122 Bhekhaḍīā ND ભેખડીઆ	NE; 16 4	0 3; 77; 12; 77	Tilakwada 5-4
123 Bhensalī VG ભેંસલી ...	S; 11-0	2·1; 300; 59, 263	Pakhajan 6 0
124 BhenskhetarVL ભેંસખેતર	NE; 14 0	1·7; 253; 40; 238	Dolatpur 2 0
125 Bherasam VG ભેરસમ ..	SE; 5 4	5·5; 863; 179; 801	Local
126 Bhīlavasī ND ભીલવસી ...	E; 9 0	4·3; 609; 94; 595	Gardeshwar 2-0
127 Bhīlāvī DP ભીલાવી ...	SE; 7 0	0·4	
128 Bhīloḍ VL ભીલોડ ...	N; 3-6	3·9; 1023; 190; 912	Ghantoli 2-0
129 Bhīmpor JD ભીમપોર ...	E; 4-4	1·8; 136; 28; 114	Rajpardi 1-0
130 Bhīmpurā AD ભીમપુરા...	E; 0-4	2·1; 271; 56; 87	Amod 1-0
131 Bhodar JB ભોદર ...	W; 4-0	2·2; 619; 127; 572	Amanpore Motal 0

Railway St. : Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities.	Institutions and other information.
Rajpardi 4-0		Local	rv	sl(2pr, m); cs(c, 2mis); 11tl; M; mq; 2dg; 4dh; gym; lib; 2dp.
Mangrol 4-0		Dehali 2-0	w	sl(pr).
Kavdi 23-0	Selamba Sun. 5-0	Sagbara 3 0	str	
Rajpipla 7-0			w	
Netrang 5-0		Kup 0-4	w; str	sl(pr).
Jambusar 1-0			w	2tl; dh.
Netrang 14-0		Ambavadi 5-0	w	sl(pr); ch.
Kevdi Road 10-0		Jivagam 5-0	w	
		Dediapada 13-0	w; str	
Mangrol 3-0		Dehali 4-0	w	sl(pr); pyt.
			w; t	sl(pr); cs(c); 2tl; ch.
Varedia 3-0		Zanor 2-0	w	sl(pr); cs(mp); 2tl; dh; lib.
Local		Local	w; rv	sl(31pr,5h); mun.; cs; (c, mp,mis); 11fr (for details see 'Places of Interest); 97tl; M; 45mq; 23dg; 12dh, 2gym; 6lib; 6dp; Church; District and Taluka H.Q.
Netrang 30-0			o	
Netrang 8-0			w; str	cs(mp).
Tanakhala 6-0			str	
Pakhajan 6 0			w; t	mq; dg.
Netrang 5-0		Local	w; str	Bulinsa Pir fr; Ct. Sud 12; dg.
Derol 6-0		Aragama 3-0	w; t	sl(pr). cs(c); 3tl; M; dg; dh.
Rajpipla 12-0		Indravarna 1 0	w	sl(pr); tl; dh.
				Deserted.
Jhagadia 12-0		Dalmovada 1-0	w; rv	2sl(pr); 2tl.
Rajpardi 1-0		Rajpardi 2-0	rv; str	
Amod 0-4	Amod 1-0	Amod 1 0	w	2tl; 2dg.
Koteshwar 1-4		Jambusar 5-0	w	sl (pr; 2tl)

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132 Bhojpor JD ભોજપોર ...	SE;	9-4	1·1;	271;	50;	246	Dharoli	1-4
133 Bholāv BR ભોલાવ ...	N;	10-0	1·2;	227;	49;	48	Broach	
134 Bhor Āmalī SR ભોર આમલી	E;	8-0	1·5;	69;	13;	472	Korai	13-0
135 Bhuchāḍ ND ભુછાડ ...	NW;	4-0	1·9;	872;	160;	861	Rajpipla	3-0
136 Bhumaliā ND ભુમલીઆ	NE;	15-0	1·7;	357;	68;	351	Gardeshwar	6-0
137 Bhuṇḍelī ND ભુંડેલી ...	N;	14-0	1·4					
138 Bhurakhaṇ DP ભુરખણ...	S;	5-0	0·5					
139 Bhūrī JD ભૂરી ...	E;	5-0	0·5;	63;	12;	56	Rajpardi	2-0
140 Bhut Bēḍā DP ભુતબેડા...	SW;	15-0	1·5;	210;	34;	162		
141 Bhuvā BR ભુવા ...	W;	10-0	1·3;	341;	74;	319		
142 Bīlāṭhā JD બીલાઠા ...	SE;	24-0	1·1;	201;	38;	201	Netrang	7-0
143 Bīlathāṇā ND બીલથાણા	NE;	16-0	0·6;	125;	22;	120	Tilakwada	5-0
144 Bīlavāḍā JD બીલવાડા ...	E,	10-4	0·9;	121;	25;	117	Rajpardi	6-0
145 Bīlothī VL બીલોઠી ...	E;	22-0	4·0;	643;	116;	636	Netrang	8-0
146 Bīrṇapāḍā DP બીનપાડા ...	SE;	4-0	0·5					
147 Bītāḍā ND બીતાડા ...	S;	13-0	1·2;	248;	36;	225	Rajpipla	12-0
148 Bodavāv SR બોદવાવ ...	S;	8-0	1·0;	117;	23;	113	Korai	12-0
149 Boḍkā AD બોડકા ...	W;	7-0	1·2;	191;	40;	175	Amod	6-0
150 Bogāmā DP બોગામા ...	NE;	8-0	3·3					
151 Bogaj DP બોગજ ...	NW;	3-0	1·6;	215;	30;	213	Dedиapada	1-0
152 Bohakhāḍi DP બોહખાડી...	S;	8-0	0·4;	41;	8;	37		
153 Boidarā AK બોઈદરા ...	W;	2-0	2·2;	583;	124;	565	Ankleshwar	1-4
154 Bojadarā JB બોજદરા ...	E;	8-0	4·2;	915;	199;	902	Ankhi	4-0
155 Bor DP બોર ..	NW;	2-0	1·5;	6;	1;	6	Kevdi	9-0
156 Borabhāthā AK બોરભાઠા	N;	3-0	4·5;	3317;	518;	2754	Local	
157 Borabhāṭhā Bēṭ AK બોરભાઠા બેટ	N;	3-0	4·5;	3317;	518;	2754	Local	
158 Borajāī JD બોરજાઇ ...	SE;	8-4	1·5;	827;	151;	770	Limet	3-0
159 Borakhāḍī VL બોરખાડી	NE;	17-4	1·0;	114;	22;	114	Netrang	2-0
160 Bor Utār ND બોર ઉતાર	NE;	20-0	0·7;	188;	32;	185	Tanakhala	1-0
161 Borī BR બોરી ...	N;	10-0	1·7;	248;	53;	81	Nabipur	1-4

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities.	Institution and other information.
Padwania 4-0		Dharoli 1-4	w; str	sl(pr).
Broach		Broach 1-0	w; t	sl(pr);tl; dg; ch.
Khanwara 20-0	Jodwan Mon. 4-0	Sagbara 6-0	w.	
Rajpipla 3-0		Rajpipla 3-0	rv	sl(pr).
Tanakhala 7-0		Tanakhala 7-0	w; t	
				Deserted.
				Deserted.
Rajpardi 2-0		Rajpardi 3-0	str	pyt.
			w	
		Amadada 0-6	w	sl(pr) ; tl; M; dg; dp; Agricultural Research Centre ; Poultry Breeding Centre.
Netrang 7-0		Netrang 6-0	w; str	
Tanakhala 7-0			str	
Rajpardi 6-0			str	
Netrang 8-0			w	sl(pr).
				Deserted.
Rajpipla 12-0		1-0	rv	
Khanwara 18-0	Selamba Sun. 7-0	Chopadvav 5-0	w	
Nahier 1-4	Amod .. 6-0		w; t	
				Deserted.
Netrang 1-0		Ghantoli 2-0	w; str	
		Dediapadaa 10-0	str	
Ankleshwar 1-4		Ankleshwar 1-4	w	sl(pr); pyt; cs(2c); tl; dh.
Ankhi 4-0		Jambusar 9-0	w	sl(pr); dp.
Kevdi Rd. 9-0		Ghantoli 2-0	str.	
Broach 2-0		Narmada Br. 0-4	w; rv	sl(pr); pyt; cs(c); tl.
Broach 2-0		Narmada Br. 0-4	w; rv	sl(pr); cs(c); tl; Columns III, IV, V are the same as in Borbhatha AK.
Jhagadia 8-0		Panwadi 1-0	w; t	2sl(pr); cs(c); tl; 2mq.
Netrang 2-0		Netrang 1-0	w	
Tanakhala 1-0			rv	
Nabipur 1-4			w	sl(pr); 4tl; dg; dh; lib.

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162 Boriā ND બોરીઆ ...	E; 8–0	0·6; 240; 37; 179	Gardeshwar 2–0
163 Borīdarā JD બોરીદરા ...	N; 7–0	0·9; 95; 17; 81	Rajpardi 1–4
164 Borīdarā ND બોરીદ્રા ...	S; 5–0	2·3; 242; 40; 242	Rajpipla 9–0
165 Borīdrā JD બોરીદ્રા ...	W; 6–0	1·3; 460; 82; 289	Mandva 3–0
166 Borīpīṭhā DP બોરીપીઠા..	SW; 7–0	0·8; 163; 29; 163	Netrang 15–0
167 Bolāv HT બોલાવ ...	SW; 6–0	1·6; 362; 89; 322	Ilav 4–0
168 Burī DP બુરી ...	NE; 7–0	1·5; 48; 5; 44	Dediapada 7–0
169 Buṭavāḍ ND બુટવાડ ...	S; 9–0	2·0; 150; 21; 130	Rajpipla 10–0
170 Buvā AD બુવા ...	W; 4–0	4·5; 1059; 222; 885	Local
171 Cakalād AD ચકલાદ ..	E; 4–0	3·2; 686; 141; 613	Sarbhan 1–4
172 Cāncvel VG ચાંચવેળ ..	NW; 9–0	11·3; 1394; 247; 1294	Pahaj 5–0
173 Candērīyā VL ચંદેરીયા...	NE; 8–0	2·3; 542; 86; 535	Dolatpur 3–0
174 Cāndporbāhrā JB ચાંદપોરબાહરા ...	W; 5–0	1·0; 223; 40; 213	Tankari 5–0
175 Cāndpor Māravā JB ચાંદપોર મારવા	W; 12–0	0·6; 77, 17; 71	Sigam 2–2
176 Candravāṇ VL ચંદ્રવાણ	NE; 10–0	2·6; 457; 72; 436	Netrang 2–0
177 Cāpaṭ ND ચાપટ ...	NE; 26–0	0·5; 54; 7; 54	Tanakhala 10–0
178 Cāsavaḍ VL ચાસવડ ...	E; 17–0	2·0; 430; 76; 353	Netrang 6–0
179 Cāvaj BR ચાવજ ...	N; 3–0	2·2; 524; 112; 452	Nabipur 4 0
180 Chāparā AK છાપરા ...	E; 5–7	0·6; 489; 95; 408	Mandava Bujarg 1–4
181 Chāparīvaḍ DP છાપરીવડ	SW; 7–0	0·8	
182 Chaṭavāḍā ND છટવાડા...	SW; 9–0	1·4; 53; 10; 53	Amletha 3–0
183 Chīdarā JB છીદરા ...	W; 12–0	5·2; 1265; 280; 1107	Sigam 3–0
184 Chīlodarā HT છીલોદરા...	W; 5–6	1·8; 267; 58; 253	Hansot 5–0
185 Chīṇḍīāparā ND છીંડીઆપરા ...	NE; 16–0	1·1; 132; 28; 123	Gardeshwar 5–0
186 Cīcaḍīā ND ચીચડીઆ ...	NE; 19–0	1·3; 228; 36; 212	Tanakhala 1–0
187 Cīkadā DP ચીકદા ...	S; 11–0	5·1; 558; 78; 517	
188 Cīkālī SR ચીકાલી ...	E; 4–0	0·7; 192; 31; 192	Korai 12–0
189 Cīkaloṭā VL ચીકલોટા ...	NE; 15–0	1·6; 208; 34; 205	Netrang 3–0

Railway St. : Distance.		Weekly Bazar ; Bazar Day ; Distance.			Motor Stand ; Distance.		Drinking water facilities.	Institutions and other information.
Nandod	10–0				Indravarna	1–4	w	sl(pr).
Rajpardi	1–4				Rajpardi	2–0	rv; str	
Rajpipla	9–0					1–0	str	
Local					Kharchi	1–0	w	2tl ; Mahadev temple.
Netrang	15–0				Dediapada	12–0	w; rv	
Kim	13–0	Ilav		4–0	Ilav	3–0	w	sl(pr); tl; lib.
Rajpipla	23–0						w;rv;sp	
Rajpipla	10–0				Rajpipla	10–0	rv	tl.
Nahier	2–0	Amod		5–0	Nahier	2–0	w; t	2sl (pr); cs (mp); 3tl; mq; dg; dh; ch; dp; temples of Ramji, Swaminarayan and Duleshwar Mahadev.
Amod	4–0	Amod		3–0		0–4	w; t	sl(pr); cs(mp); tl; M; ch; lib; dp.
Vagra	8–0				Local		w	sl(pr); cs(mp); Vadi fr; Phg: Sud 1; Bawa Chaladin fr. Ct. Sud 5; tl; mq; 3dg;ch; dp.
Netrang	6–0				Sukavana	0–4	w; rv	sl(pr).
Karmad	5–0						t	mq.
Kangam	6–0						w	
Netrang	2–0				Netrang	1–0	w, str	
Tanakhala	10–0						str	
Netrang	6–0				Netrang	5–0	w; str	sl(pr); cs(c); dp
Local						0–4	w; rv	sl(pr); cs(c); tl; mq; 2dg; dh.
Broach	2–0				Local	0–4	t	sl(pr); tl.
								Deserted.
Amletha	3–0						str	
Kora	7–0						w	2sl(pr); cs(c); 2tl; 2M; mq; lib.
Ankleshwar	18–4	Hansot		5–0	Hansot	5–4	w, t	sl(pr); 2tl; dg; ch; lib; dp.
Tankhala	6–0					6–4	w; str	
Tankhala	1–0				Indravarna	10–4	rv	ch.
					Ambavadi	2–0	w; str	sl(pr); dg; dp
Kavdi	30–0	Selamba	Sun.	2–0	Saghara	2–0	w	
Netrang	3–0					2–4	w; str	

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190	Cīkhalī VL ચીખલી ...	E:	9–4	1·9;	362;	58;	361	Dolatpur	6–0
191	Cīm̱bīpāṇī SR ચીંબીપાણી ...	S;	13–0	0·2;	37;	6;	37	Korai	15–0
192	Cītrāvāḍī ND ચીત્રાવાડી	SW;	1–4	1·7;	346;	63;	344	Bhadam	1–0
193	Cītrol ND ચીત્રોલ ...	SW;	5–0	1·5;	68;	12;	68	Amletha	3–4
194	Cītvaḍ SR ચીતવડ ..	3E:	12–0	0·6;	102;	20;	102	Korai	14–0
195	Cokī JD ચાંકી ..	S;	15–0	1·6;	75;	14;	72	Rajpardi	6–0
196	Cokīmāḷī DP ચાંકીમાળી ...	NE;	6-0	0 9;	79;	12;	79		
197	Copaḍī DP ચાંપડી ...	N;	8 0	9·8;	59;	11;	50	Dediapada	4–0
198	Copaḍvāv SR ચાંપડવાવ	S ;	4–0	3·1;	296 ;	52 ;	293	Korai	14 0
199	Cor Āmalā VL ચોર આમલા ...	SE;	6–0	0 4;	204;	30;	192	odgam	3–0
200	Corakotar DP ચોરકોતર...	E;	5–0	0·7;	19;	3;	19	Dediapada	25–0
201	Corāśī AK ચોરાશી ...								
202	Colād BR ચોલાદ ...	NW;	12-0	2·3;	329;	63;	185	Karmad	4 0
203	Culī DP ચુલી ...	SW;	5-0	1·2;	242;	41;	236	Dediapada	7 4
204	Cumbal DP ચુંબલ ...	NE;	7–0	0 3					
205	Ḍābacar ND ડાબચર ...	SE;	12-0	2·7					
206	Dābakā SR દાબકા ...	S;	10-0	0 9;	24;	5;	24	Korai	22–0
207	Ḍābhā JB ડાભા ...	N;	4-0	5 6;	1338;	345;	1253	Gajera	3–0
208	Ḍabhāḷ JD ડભાળ ...	E;	12-0	3 8;	367;	66;	342	Umalla	1·4
209	Ḍabhālī BR ડભાળી ...	E;	12 4	1·3;	531;	88;	488		
210	Dābhavaṇ DP દાભવાણ...	S;	12-0	1 9;	214;	42;	214	Dediapada	14–0
211	Ḍābakā DP ડાબકા ...	NE;	20 0	2 4;	63;	12;	57	Dediapada	14-0
212	Dādāpor AD દાદાપોર ...	E;	4-0	1·5;	277;	61;	214	Amod	3–0
213	Daḍhāl Inām AK દઢાલ ઈનામ ...	E;	5-0	0·8;	1053;	226;	884	Local	
214	Dadheḍā JD દધેડા ...	S;	8–0	3·2;	349;	69;	242	Jhagadia	5-0
215	Dadhvāḍā ND દધવાડા ...	SW;	7 0	1·6;	20;	6;	20	Amletha	2–0
216	Daharī JB દહરી ...	W;	10-0	3·0;	466;	91;	463	Jantran	2–0
217	Dahegām JB દહેગામ ...	W;	19 0	7·2;	2291;	461		Local	
218	Dahēgām BR દહેગામ ...	W;	4 0	2·5;	952 ;	165;	897	Broach	4–0

Railway St. ; Distance.		Weekly Bazar ; Bazar Day ; Distance.			Motor Stand ; Distance.		Drinking water facilities.	Institutions and other information.
Netrang	8-0				Netrang	6-0	w; str	
Kavdi	15-0	Selamba	Sun.	7-0	Selamba	10-0	w	
Rajpipla	0-4				Rajpipla	0-4	w	sl(pr)
Amletha	3-4						str	
Kavdi	30-0	Selamba	Sun.	8-0	Sagbara	9-0	w	
Rajpardi	6-0						str	
							w; sp; str	
							str	
Rajpipla	4-0				Dediapada	18-0	str	
Kavdi	22-0	Selamba	Sun.	5-0	Local		w	
Vakal	8-0				Dehali	2-0	w; rv	
Netrang	43-0							
								Included in Ankleshwar municipal area.
Derol	6-0				Vesdada	4-0	w	sl(pr); cs(c); tl; dg; ch ; dp.
Kevdi Road	7-0						w; str	
								Deserted.
								Deserted.
Kavdi	36-0	Selamba	Sun.	12-0	Selamba	9-0	w	
Ankhi	2-0				Local	0-4	w	sl(pr); cs(c); 2tl; 2mq; dg; ch.
Umalla	1-4						w; str	
					Local		w	sl(pr); cs(c); 2tl; dh.
Kevdi Road	7-0				Ambavadi	3-0	w	
Kevdi Road	7-0				Dediapada	20-0	str	
Amod	4-0	Amod		3-0	Amod	4-0	w; t; rv	sl(pr).
Local					Local		w; str	sl(pr); cs(c); mq; 2dg; dp.
Karchi	3-0				Talodra	1-4	w	sl(pr); tl; mq; 2dg; ch.
Amletha	2-0						str	
Kora	4-0				Local		w	sl(pr); tl; mq.
Kavi	3-0						w	sl(pr); Gangeshwar fr. Ct. Sud. 15; 2tl; mq; 2dg; 3gym; ch.
Vejalpore	2-0				Broach	1-4		sl(pr); cs(c); 2tl; mq; dg; ch.

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219 Dahēj VG દહેજ	SW;	20 0	31·3;	2239;	447;	1831	Local	
220 Dājīparā VL દાજીપરા	NE;	7 0	0·8;	260;	39;	248	Dharoli	3-0
221 Ḍamalaī JD ડમલઈ	E;	4 4	1·7;	263;	42;	263	Jhagadia	3-0
222 Dāṇḍāvāḍī DP દાંડાવાડી	E;	16 0	0·7;	74;	17;	74		
223 Dāndā AD દાંદા	E;	7 0	3·4;	792;	180;	666	Dora	2-0
224 Ḍaṇsolī VL ડણસોલી	S;	6 0	1 4;	590;	115;	582	Valia	6-0
225 Dantrāī HT દંત્રાઈ	S;	6 0	2 0.	445;	80;	401	Hansot	5-0
226 Daśān BR દશાન	W	5 4	2·3;	307;	69;	251	Hinglot	1-0
227 Dātaṇ Āṃbalī ND દાતણ આંબલી	SW;	11 0	0·5;	11;	3;	11	Pratapnagar	3 0
228 Dattavāḍā SR દત્તવાડા	S;	6 0	0 3;	278;	41;	276	Korai	13-0
229 Dayādarā BR દયાદરા	NW;	9 0	2·7;	1747;	338;	1093	Local	
230 Ḍebār JD ડેબાર	S;	21 0	2·9;	265;	49;	265	Netrang	7-0
231 Ḍeḍīāpāḍā DP ડેડીઆપાડા	H.Q.		2·2,	618;	132;	361	Local	
232 Ḍehalī VL ડેહલી	E;	4 0	3 2;	2012;	166;	1594	Local	
233 Deṇavā AD દેણવા	W.	9 0	14·5.	418;	59;	363	Amod	8-0
234 Derol BR દેરોલ	NW;	8 0	4·2;	1187;	268;	770	Local	
235 Deśāḍ VL દેશાડ	E;	3 0	1·5;	911;	166;	790	Valia	3-0
236 Detrāl BR દેત્રાળ	W;	7-4	1 3;	374;	76;	338	Karmad	1-0
237 Devagām DP દેવગામ	S;	11-0	0 2;	35;	6;	34	Dediapada	17-0
238 Devalā JB દેવલા	W;	17 0	21·0;	1861;	345;	1692	Tankari	5-0
239 Devamogarā SR દેવમોગરા	S;	12 0	0·1;	7;	1;	7	Korai	20-0
240 Devasākī SR દેવસાકી	E;	12-0	2·3;	195;	35;	187	Korai	18-0
241 Devīdav SR દેવીદવ	S;	9 0	3·0.					
242 Devīpāḍā DP દેવીપાડા	S;	9 0	0·1;	55;	13;	55	Dediapada	17-0
243 Dhābalākuvā SR ધાબળાકુવા	E;	12 0	0·3;	153;	25;	152	Korai	10-0
244 Dhāmadrā ND ધામદ્રા	NE;	15-4	1·3;	773;	110;	751	Gardeshwar	5-0
245 Dhamaṇācā ND ધમણાચા	NW;	5 0	1·9;	788;	134;	664	Amletha	4·0

Railway St.; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities;	Institutions and other information.
Local		Local	w	2sl(pr); cs(c); 3tl; mq; dg; 2dh ch; lib; 2dp.
Netrang 6-0		Dharoli 1-4	str	
Local		Jhagadia 6 0	w; t	pyt.
			w	
Amod 7-0	Amod . 8-0	Local 0 1	w	sl(pr); cs(c); 3tl; dg; dh; ch; lib.
Mangrol 4-0		Mangrol 3-0	w; rv	sl(pr); 3tl.
Ankleshwar 18-2	Hansot .. 5-0	Hansot 5-0	w; t	sl(pr); cs(c); tl; ch.
Broach 6 0		Hinglot 1-0	w; rv	sl(pr); cs(c); 3tl; mq; dg; lib.
Pratapnagar 3-0		Pratapnagar 6-0	str	
Kavdi 23-0	Selamba Sun. 4-0	Chopadvav 9-0	w	sl(pr); tl.
Local		Local	w	2sl(pr); cs(c, 2fmg); tl; mq; dg. lib; dp.
Netrang 7-0		Netrang 4 0	w; str	
Netrang 16-0		Local	w; str	sl(pr); tl-Mahadev; dh; ch; dp; Taluka Headquarters.
Mangrol 8-0		Local	w; rv	sl(2pr, m); cs(c, mis); 4tl; dh; ch.
Amod 8-0	Amod .. 8-0	Chanchvel 3-0	w	sl(pr); tl; dg.
Tralsamath 0-2		Local 0 2	w	sl(pr); cs(c. 2mis); tl; M; mq; 2dg; dh; ch; lib; dp; Bhimnath Mahadev temple.
Mangrol 6-0		Valia 1 4	w; str	sl(pr); Dhingla Dhingli fr. Bdp. Vd 15; 2tl.
Broach 6-0		Hinglot 0-6	w	sl(pr); cs(mp); tl; mq; 3dg; dh; ch.
Kevdi Road 7-0		Ambavadi 7-0	str	
Jambusar 16-0		Local	w; t	2sl (pr); cs (c); M; 2mq; dg; ch; lib; dp.
Kavdi 38-0	Selamba Sun. 17-0	Sagbara 9-0	w	Mata fr. Mg. Vad 13.
Kavdi 32-0	Selamba Sun. 10-0	Selamba 7 0	w	
				Deserted.
Kevdi Road 15-0		Ambavadi 0 4	w; str	Dhuderi fr. Phg. Vad 1.
Kavdi 32-0	Selamba Sun 5-0	Selamba 7-0	str	
Tanakhala 7-0		6-0	w; str	fr. Phg. Sud. 11.
Amletha 4-0		Jesalpore 3 4	rv	sl(pr); 2tl.

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246 Dhamarāḍ HT ધમરાડ ...	SW;	7-0	4.0;	620;	137;	501	Ilav	4-0
247 Dhaṇiaḷā ND ધણીઆળા	NE;	18-0	0·6;	74;	11;	68	Tanakhala	2-0
248 Dhankhet DP ધનખેત ...	S;	3-0	0·3;					
249 Dhanor DP ધનોર ..	W;	5-0	1·6;	61;	15;	61		
250 Dhānpor ND ધાનપોર ...	NW;	5-0	1·5;	478;	84;	458	Rajpipla	5-0
251 Dhaṇsolī AD ધણસોલી ...								
252 Dhanturiā BR ધંતુરીઆ	SW;	9-0	5·4;	2071;	373;	1461	Bhadbhut	3-0
253 Dhārikheḍā ND ધારીખેડા	W;	8-0	0 9;	261;	46;	207	Amletha	2-0
254 Dhārolī JD ધારોલી ...	SE;	11-0	5·4;	1990;	360;	1436	Local	
255 Dhavalīvēr SR ધવલીવેર...	E;	6-0	1·1;	500;	73;	475	Korai	8-0
256 Ḍhephā ND ઢેફા ...	NE;	19-0	0·5;	28,	7;	21	Gardeshwar	7-0
257 Dhīrakhāḍī ND ધીરખાડી	NE;	12-0	4·9;	224;	27;	224	Gardeshwar	7-0
258 Dhobīsal ND ધોબીસલ ...	NE;	17-6	0·3;	118;	22;	116	Tanakhala	6-0
259 Ḍhocakī ND ઢોચકી ...	SW;	10-0	0·7;	25;	6;	25	Amletha	3-0
260 Dholā Kuvā D ધોલાકુવા.	S;	3-0	1·8;	105;	19;	98	Jhagadia	4-0
261 Ḍholār ND ઢોલાર ...	SW;	4-0	2·0;	761;	134;	761	Amletha	3-0
262 Dhole Khām JD ધોલેખામ.	E;	15-2	1·7;	221;	36;	221	Netrang	4-0
263 Dholgām VL ધોલગામ ...	E;	2 0	5·4;	1188;	198;	1090	Valia	2-0
264 Dholī JD ધોળી ...	E;	12-4	1·5;	178;	29;	106	Rajpardi	8-0
265 Dhorīvāv ND ધોરીવાવ ...	W;	3-0	0·3;	204;	32;	204	Rajpipla	3-0
266 Ḍhuñḍhā JD ઢુંઢા	NE;	13 0	1·0;	281;	48;	271	Umalla	4-0
267 Dīgas HT દીગસ ...	SW;	3-6	3·3;	757;	152;	652	Shera	1-4
268 Dīvā AK દીવા ...	N;	1 4	5·3;	4026;	843;	3387	Local	
269 Dīvī AK દીવી ...	N,	1-3	1·2;	828;	173;	758	Ankleshwar	1-0
270 Doḍavādā VL દોડવાડા ...	SW;	4-0	1·5;	293;	57;	276	Valia	4-0
271 Dodhanvāḍī SR દોધનવાડી	S;	12-0	3·5;	123;	21;	109	Korai	20-0
272 Dokaṭī DP દોકટી ...	N;	11-0	2·1;	163;	26;	163	Rajpipla	12-0
273 Dolatpur VL દોલતપુર ...	E,	10-0	2·4;	832;	137;	776	Local	
274 Ḍoliā JB ડોલીઆ ...	W;	7-0	3·2;	383;	82;	293	Tankari	3-0
275 Dorā AD દોરા ...	E;	8-0	5·8;	1279;	250;	1193	Local	

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities	Institutions and other information.
Kim 14-0	Ilav 4-0	Ilav 3-0	w	sl(pr); cs(c); 2tl; dg; ch; dp.
Tanakhala 2-0			w	
		Dediapada 2-0	str	Deserted.
		Ghatoli 3-0	sp	
Rajpipla 5-0		Rajpipla 4-0	rv	sl(pr); 2tl; ch.
				Deserted.
Broach 11-0		Matied 4-0	w; rv	sl(pr); pyt; tl; dh.
Amletha 2-0			w; str	ch.
Damlai 6-0		Local	w; rv	2sl(pr); cs(c); Sama Pancham Bdp. Sud 5 ; 3tl; mq; ch; dp.
Kavdi 32-0	Selamba Sun. 2-0	Selamba 3-0	w	sl(pr).
Naswadi 6-0				
Rajpipla 16-0			w; rv	
Tanakhala 6-0		Indravarna 8-0	str	
Amletha 3-0			w	
			str	
Damlai 0-1		Jhagadia 3-4	w	
Amletha 3-0			w	sl(pr).
Netrang 4-0			str	
Jhagadia 10-0		Valia 1-4	w; t; rv	sl(pr); tl; ch.
Rajpardi 8-0			w; str	
Rajpipla 3-0		Ranipara	str	
Umalla 4-0		Umalla 3-0	str	
Ankleshwar 10-0	Hansot .. 4-0	0-4	w	sl(pr); tl; mq; dg; lib.
Ankleshwar 2-0		Ankleshwar 1-4	w	3sl(pr); pyt; cs(2c); 4tl; 2mq; 4dg; dh; ch; lib; 2dp.
Ankleshwar 2-0		Ankleshwar 1-4	w	sl(pr); 2tl.
Dadhal 5-0		Valia 4-0	w	
Kavdi 38-0	Selamba Sun. 17-0	Sagbara 9-0	w	sl(pr).
Rajpipla 12-0		2-4	rv	
Netrang 4-0		Navanagar 1-0	w; str	sl(pr)
Jambusar 7-0		Local	t	sl(m); M; ch
Palej 4-0	Amod .. 8-0	Local	w	2sl(pr); cs(c); 4tl; 3dg; dh; ch; lib.

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276	Dudhalivēr	SR	દુધલીવેર	S;	6-0	0·4;	40;	9;	40	Korai	26-0
277	Ḍumakhaḷ	DP	ડુમખળ...	NE:	22-0	3·9;	310;	56;	294		
278	Ḍuṅgarā	HT	ડુંગરા ...	SE:	9-0	1·4;	405;	78;	385	Kosamba	3-0
279	Ḍuṅgarī	VL	ડુંગરી ...	SW;	4-0	1·9;	849;	159;	796	Valia	3-0
280	Ḍuthar	DP	દુથર ..	N;	16-0	2·3;	45;	7;	41		
281	Eksāl	BR	એકસાલ ...	W;	11-0	3·6,	546;	119;	407	Broach	12-0
282	Gabhāṇā	ND	ગભાણા ...	NE;	12-6	1·3;	330;	64;	207	Gardeshwar	2-0
283	Gaḍakhol	AK	ગડખોલ ...	E,	2-0	2·4;	547;	121;	450	Andada	0-2
284	Gāḍakoī	ND	ગાડકોઈ ...	NE;	18-4	1 6;	287;	48;	275	Gardeshwar	4-0
285	Gadhēr	ND	ગધેર ...	NE.	24-0	12·9;	933;	138;	933	Tanakhala	13-0
286	Gaḍī	DP	ગડી ...	N.	8-0	3·5;	127;	22;	124		
287	Gaḍī	ND	ગડી ..	NE;	26 0	2·5;	31	5;	31	Tanakhala	5-0
288	Gaḍī	SR	ગડી ..	S;	10-0	2 3					
289	Gaḍīovaḍ	DP	ગડીઓવડ	W;	1-0	0·1.	27,	4;	27		
290	Gāḍiṭ	ND	ગાડીટ ...	S;	11-0	2·2;	179,	25;	153	Rajpipla	14-0
291	Gaḍod	ND	ગડોદ ...	NE:	19-4	0·9;	371:	69;	367	Tanakhala	2-0
292	Gāgēr	ND	ગાગેર ...	S·	14-0	3·0,	263;	45;	229	Rajpipla	19-0
293	Gājargoṭā	DP	ગાજરગોટા	NW;	5 0	3·0,	276;	39;	264	Rajpipla	6-0
294	Gajērā	JB	ગજેરા ...	N;	7-0	5 9;	3837;	852;	3190	Local	
295	Galēṅḍā	VG	ગલેન્ડા ...	SW;	13-0	2·2;	286;	61;	204	Dahej	7-0
296	Gālībā	JD	ગાલીબા ..	SE;	24-0	3·9;	375;	50;	374	Netrang	7-0
297	Galupurā	ND	ગલુપુરા ...	NE;	16-0	0·1:	97;	12;	97	Tilakwada	5-0
298	Galwāḍā	DP	ગલવાડા ...	N:	8-0	2·9					
299	Gaṃbhīrparā	ND	ગંભીરપરા	E;	8 0	0·6;	143;	20;	141	Rajpipla	7-0
300	Gaṃbhīrparā	JD	ગંભીરપરા	S;	13-0	0·7.	57;	10;	57	Netrang	3-4
301	Gaṃbhīrparā	VL	ગંભીરપરા	SW;	4-4	0·3					
302	Gāmkuvā	ND	ગામકુવા...	W;	10-0	1·2;	682;	128;	640	Pratapnagar	1-4

Railway St. ; Distance.	Weekly Bazar, Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities ;	Institutions and other information.
Kavdi 20-0	Selamba Sun. 10-0	Chopadvav 3-0	str	
		Dediapada 22-0	w rv	architectural remains supposed to be of the time of the Dum King.
Kosamba 3-0	Ilav 3-0	Sunevkalla 3-0	w; t	sl(pr): cs(c); mq : dg.
Mangrol 5-0		Valia 3-0	w; t	sl(pr); mq.
			str	
Broach 12-0		Nawetha	w; t	sl(pr); 2tl; mq; dg; dh; ch.
Rajpipla 14-0		2-0	str	sl(pr) : 3tl.
Ankleshwar 2-4		Andada 0-5	w; t	sl(pr); cs(c); Sindhwai Mata fr. last Sunday of Shravan and An. Sud 8; tl; dh; Sindhwai Mata's temple and Bhathiji's Deri
Tanakhala 5-0		13-0	w	
Tanakhala 13-0			rv	sl(pr).
		Dediapada 6-0	t; str	
Tanakhala 5-0			str	
				Deserted.
		Dediapada 0-4	str	
Rajpipla 14-0		0-4	w	
Tanakhala 2-0				
Rajpipla 19-0		2-0	w	
Rajpipla 6-0		0-4	w; str	old Shivalaya.
Masar Road 3-0		Local	w	sl(2pr,m); pyt, cs(c); 4tl; mq, 2dh; ch; lib; 3dp.
Sambheti 2-0			w	sl(pr); tl; mq; dg.
Netrang 7-0		Dumala Val 3-0	w; str	sl(pr).
Tanakhala 7-0			str	
				Deserted
Rajpipla 7-0		Hirapara 2-0	rv	sl(pr).
Local		Netrang 3-0	str	cs(c).
				Deserted.
hina Raju-vadia 1-4		Pratapnagar 1-0	w	sl(pr).

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303 Gaṇapataparā HT ગણુપતપરા ...	NE;	1–4	4·1;	55;	14;	53	Hansot	2–0
304 Ganaserā SR ગનસેરા ...	E;	2·0	1·3;	214;	36;	211	Korai	10–0
305 Gandhār VG ગંધાર ...	NW;	14·0	25·5;	735;	143;	681	Pakhajan	10–0
306 Gāndhu VL ગાંધુ ...	S;	4–0	0·2;	526;	87;	502	Valia	4–0
307 Gangāpur DP ગંગાપુર...	SE;	9–0	1·3;	132;	23;	129	Dediapada	9–0
308 Garābo DP ગરાબાં ...	S;	2–0	2·1					
309 Gāradā DP ગારદા ...	SW;	10·0	2·2;	299;	43;	272	Netrang	12–0
310 Garaḍeśvar ND ગરડેશ્વર	E;	11·0	2·4;	732;	152;	423	Local	
311 Gavalavādī DP ગવલાવાડી	S;	10–0	1·1;	60;	11;	60	Kevdi	4–0
312 Gāyāsāmar SR ગાયસામર	W;	11·0	0·4;	31;	5;	31	Korai	14–0
313 Ghaḍh DP ઘઢ ...	N;	10·0	2·4;	128;	15;	120	Dediapada	5–0
314 Ghamaṇāḍ AD ઘમણાદ...	SE;	8·0	4·1;	1204;	238;	984	Local	
315 Ghanakhet DP ઘનખેત ...	S;	3–0						
316 Ghanakhetar DP ઘનખેતર	S;	1–0	1·1;	161;	24;	158	Dediapada	2–0
317 Ghāṇīkhunṭ VL ઘાણીખુંટ	E;	22–0	0·8;	291;	50;	287	Netrang	8–0
318 Ghanpīpar DP ઘનપીપર...	E;	8–0	1·3,	30;	5;	30		
319 Ghāṇṭā VL ઘાંટા ...	SE;	0–9	0·7;	57;	10;	57	Jankhavav	5–0
320 Ghāṇṭā ND ઘાંટા ...	SW;	7–4	2·4;	257;	44;	257	Amletha	2–0
321 Ghāṇṭolī DP ઘાંટોલી ...	NW;	4–0	1·6;	383;	58;	369	Dediapada	4–0
322 Ghoḍā VL ઘોડા ...	SW;	6–0	1·0;	302;	64;	294	Valia	5–0
323 Ghoḍaḍā SR ઘેાડદા ...	S;	10–0	7·2;	27;	2;	27	Korali	17–0
324 Ghoḍādarā HT ઘોડાદરા	SE;	8–4	2·5;	496;	57;	470	Sisodra	1–4
325 Ghoḍamuṅg SR ઘોડમુંગ	S;	5–0	0·5;	186;	26;	186	Korai	8–0
326 Ghoḍī DP ઘોડી ...	W;	7–0	0·7;	394;	61;	298	Dediapada	10–0
327 Ghoḍī BR ઘોડી ...	NE;	14–0	1·5;	239;	56;	234		
328 Ghoṭkhāḍī DP ઘોટખાડી	S;	8–0	0·3					
329 Gīcaḍ DP ગીચડ ...	NE;	8–0	2·6;	101;	13;	99		
330 Golādarā VG ગોલાદરા...	W;	15–0	3·2;	513;	111;	476	Pakhajan	5–0
331 Golavāṇ DP ગોલવાણ ...	SE;	10–0	0·5;	47;	7;	44		

Railway St.; Distance.	Weekly Bazar; Bazar Day; Distance.	Motor Stand; Distance.	Drinking water facilities	Institutions and other information.
Ankleshwar 11-0	Hansot .. 2-0	Hansot 1-4	w; t	
Kavdi 25-0	Selamba Sun. 2-0	Sagbara 1-0	w; str	
Pakhajan 10-0		Local	w; t	sl(pr); cs(c); Gokul Ashtami fr. Shr. Vad 8; 3tl; mq; 2dg. ch.
Mangrol 4-0		Valia 4-0	w; rv	sl(pr); mq; dg.
Kevdi Rd. 16-0		Kakadpada 2-0	w; str	
				Deserted.
Netrang 12-0		Arethi 3-0	w; str	
Rajpipla 11-0		1-0	w; rv	sl(pr); cs(mp); Datta Jayanti fr. Mrg. Sud. 15, Punyatithi fr. Asd. Sud. 1; 5tl; dg; dh; dp; Datta Sanstha.
Kevdi Rd. 4-0		Dediapada 14-0	str	
Kavdi 30-0	Selamba Sun. 8-0	Selamba 7-0	str	
Rajpipla 20-0			w; str	
Tanchha 4-0	Amod .. 6-0	Sarbhan 2-0	w; t	sl(pr); cs(e); 2tl; mq; dg
				Deserted;
Netrang 17-0		Dediapada 3-0	str	
Netrang 8-0		Thava 1-0	w	
		Dediapada 10-0	w	
Jankhavav 5-0		Dehali 5-0	rv	
Amletha 2-0			str	
Netrang 2-0		Local	sp; str	
Mangrol 5-0		Valia 5-0	w; t	sl(pr); tl; dg.
Kavdi 22-0	Selamba Sun. 3-0	Sagbara 5-0	w	
Hathuran 2-4	Kosamba 3-0	Hathuran 3-0	w; t	sl(pr); cs(c); tl; mq; dg.
Kavdi 32-0	Selamba Sun. 5-0	Sagbara 4-0	str	
Netrang 7-0				
		Tankharia 1-4	w	cs(c), mq; 2dg.
				Deserted.
		Dediapada 8-0	str	
Sambheti 4-0		Keshwan 4-0	w; t	sl(pr); cs(c); 2tl; M; dg.
		Khodaamba 1-4	w	

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332 Gonāṃbā SR ગોન આંબા	S.	4-0	0·3.	94;	20;	94	Korai	12-0
333 Gopalīā DP ગોપલીઆ...	S.	11-0	0·6;	189;	30;	185		
334 Gopālparā ND ગોપાલપરા	E;	5-0	0·6;	720;	119;	575	Vavdı	2-0
335 Gorā ND ગોરા ...	E;	11-0	3·3;	487;	82;	447	Gardeshwar	4-0
336 Gorātīā JD ગોરાટીઆ ...	S;	11-0	0·3.	114;	24;	101	Dharoli	5-0
337 Govālī JD ગોવાલી ...	W;	5-0	3·1;	1723;	356;	1572	Jhagadia	5-0
338 Govālī Beṭ JD ગોવાલી બેટ	W;	6-4	1·9;	388;	80;	343	Jhagadia	6-0
339 Govālpāṭaḍī DP ગોવાલ પાટડી	E.	7 0	0·6					
340 Goṭapāḍā SR ગોટપાડા ...	E.	3-0	0 6;	164;	28;	164	Korai	9-0
341 Guḍāghāṭ SR ગુડાઘાટ ...	S;	12 0	0·5					
342 Gudvāṇ SR ગુદવાણ ..	S;	10 0						
343 Gugalā Āṃbā DP ગુગલા આંબા	S;	11 0	1·3.	26;	4;	26	Kevdi	7-0
344 Guhadā VL ગુહદા ...	E.	19·0	0 4					
345 Gulāl JB ગુલાળ ...	W;	17 0	1·6;	186;	35;	163	Dehgam	1-0
346 Gulavāṇī ND ગુલવાણી ...	NE;	23 0	2·4;	155;	27;	155	Tanakhala	7-0
347 Guldā alias Cām DP ગુલ્દા ઉર્ફે ચામ	SW;	7 0	1·0;	124;	20;	115		
348 Gundavā DP ગુંદવા ...	S.	3·0	0·9					
349 Guṇḍecā JD ગુંડેચા ...	S;	6 4	1·6;	372;	60;	295	Rajpardı	4-0
350 Guṇdīā VL ગુંદીઆ ...	SE;	13 0	1·1;	1076;	153;	1052	Dharadva	4-0
351 Gundvāṇī DP ગુંદવાણી ...	NE;	15 0	1 5					
352 Guṇeṭhā ND ગુણેઠા ...	NE;	19 0	0 6;	126;	22;	111	Tanakhala	1-0
353 Guvār ND ગુવાર ...	NE;	8 0	1·4;	385;	67;	377	Lachhras	4-0
354 Hajarparā ND હજરપરા...	N;	3 0	0·4;	609;	120;	449	Pratapnagar	7-0
355 Hajāt AK હજાત ...	W;	5 4	2·1;	629;	114;	592	Sajod	2-0
356 Haladaravā BR હલદરવા...	NE;	8 0	2·8;	676;	132;	569	Nabipur	2-0
357 Halagām SR હલગામ ...	S;	10 0	2·0					
358 Hāmadpor Kanthārīyā JB હામદપોર કથારીયા	W;	10-0	0·9;	195;	36;	181	Kavi	2-0

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities.	Institution and other information.
Khanwara 18-0	Selamba Sun. 7-0	Chopadvav 6-0	w	
		Dediapada 15-0	w; str	
Rajpipla 5-0		Vavdi 1-0	w	tl
Rajpipla 12-0		Indravarna 3-0	rv	2tl; Kalbhairava temple nearby.
Local			str	
Gumandev 2-0		Gumandev 2-0	w	sl(pr); cs(c); 4tl; mq; 2dh; ch.
Gumandev 3-0		Bondra 5-0	w; rv	
				Deserted
Kavdi 30-0	Selamba Sun. 0-4	Selamba 0-1	w; str	tl.
				Deserted.
		Kakadpada 5-0	w; str	Deserted.
Kavdi Road 7-0		Dediapada 15-0	str	
				Deserted.
Kavi 2-0			w	tl; mq; 2dg; gym
Tankhala 7-0			w	
		Dediapada 7-0	rv	
				Deserted
Padwania 2-0			str	sl(pr)
Zandvav 8-0		Navanagar 4-0	w; rv	sl(pr).
				Deserted
Tanakhala 1-0				
Rajpipla 4-4		Mangrol 0-6	rv	tl.
Rajpipla 2-0		Rajpipla 4-0	w	sl(pr); tl.
Ankleshwar 7-0		Sajod 2-0	w; t	sl(pr); cs(c); Bharodeshwar Mahadev fr. every Somvati Amavasya; 3tl; Bharodeshwar Mahadev temple and Suryakund *alias* Belbala Kund.
Chavej 1-4			w	sl(pr); pyt; cs(c); 2tl; dh; lib; dp.
				Deserted.
Kangam 1-4			w	sl(pr); tl.

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359 Hāndī ND હાંદી ...	SW;	8-0	1·2;	43;	7;	43	Amletha	3-0
360 Hānsoṭ HT હાંસોટ ...	H.Q.		6·2;	6078;	1257;	1879	Local	
361 Harinagar VG હરિનગર...	W;	15-0	1·8;	117;	25		Pakhajan	11-0
362 Haripará AK હરિપરા ...	N;	5-0	2·8;	573;	112;	551	Sajod	1-4
363 Haripurā JD હરિપુરા ...	E;	7-0	0·8;	520;	106;	350	Umalla	2-0
364 Harīpurā JD હરીપુરા ...	E;	2-0	0·5					
365 Harīpurā ND હરીપુરા ...	NE;	21-0	2·0;	60;	14;	44	Tanakhala	7-0
366 Harīpurā DP હરીપુરા ...	SE;	7-0	0·5;	112;	21;	98		
367 Hāthīyāvaḍ DP હાથીયાવડ	E;	18-0	0·3					
368 Helambī ND હેલંબી ...	NW;	5-0	0·3;	214;	30;	209	Pratapnagar	10-0
369 Hetampor AD હેતમપોર	W;	10-0	0·7;	70;	16;	63	Amod	9-0
370 Hīgallā BR હીગલ્લા ...	N;	11-0	1·7;	552;	99;	353	Nabipur	3-0
371 Hīṅgloṭ BR હીંગલોટ ...	W;	6-0	2·1;	923;	171;	892	Local	
372 Hīrāpor VL હીરાપોર ...	NW;	1-6	2·8;	499;	87;	459	Valia.	1-6
373 Holā Kotar VL હોલાકોતર	SE;	10-6	0·6;	257;	43;	251	Bharadia	1-0
374 Holī Āmlī SR હોલીઆમલી	S;	9-0	0·3;	20;	3;	20	Korai	20-0
375 Idlāvī DP ઇદલાવી ...	S;	12-0	1·8					
376 Īkhar AD ઈખર ...	SE;	12-0	5·7;	2515;	457;	2314	Local	
377 Ilāv HT ઇલાવ ..	S;	11-2	5·4;	2056;	461;	1397	Local	
378 Indlāvi DP ઇંદલાવિ ...	S;	12-0	0·7;	59;	7;	59	Kevdi	7-4
379 Indor JD ઇંદોર ...	N;	17-0	3·9;	1494;	193;	1374	Panetha	2-0
380 Indravaraṇā ND ઇન્દ્રવરણા	E;	10-0	1·4;	229;	44;	188	Gardeshwar	0-4
381 Intākalā VL ઇન્ટાકલા ...	E;	7-0	2·2;	379;	77;	368	Dehali	3-0
382 Intolā AD ઇન્ટોલા ...	W;	5-0	2·7;	313;	89;	196	Amod	6-0
383 Isanapor JB ઇસનપોર ...	W;	11-0						
384 Islāmpur JB ઇસ્લામપુર...	W;	13-0	4·2;	609;	130;	589	Tankari	1-4

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities.	Institutions and other information.
Amlehtha 3-0			str	
Local		Local	w; t	sl(4pr, 2h); cs(4c); 16tl; 3mq; 6dg; gym; ch; 2lib; 6dp; Peta H. Q.; P.W.D. Bungalow.
Sambheti 6-0			t	M; dg.
Ankleshwar 7-0		Sajod 1-2	w; t	sl(pr); ch.
Umalla 2-0		Local	w	sl(pr); Bhandareshwar Mahadev fr., last Monday of Shravan; 2tl; dh.
				Deserted.
Tankhala 7-0			str	
		Kakadpada 1-0	rv	
				Deserted.
Amletha 5-0		Kubhasgam 5-0	w	tl.
Amod 8-0	Amod 9-0		w	
Nabipur 3-0		Local 0-1	w	sl(pr); cs(c); mq; 3dg; ch.
Broach 6-0		Local	w	sl(pr); cs(mp); 3dg.
Jhagadia 12-0		Local	w; rv	sl(pr); tl; dg; ch; *Akik* stone quarries.
Mangrol 4-0		Dehali 3-0	w; rv	
Kavdi 30 0	Selamba Sun. 8-0	Sagbara 8-0	w	
				Deserted.
Palej 3-4	Palej 2-0	Local	w	2sl(pr); pyt; cs(c); tl; mq; 6dg; ch; dp.
Kim 9-0	Local	Local	w	2sl(pr); pyt; cs(mp, mis); 6tl; 2dg; ch; lib; 4dp; Parsi Agiary; Vanjira wav.
Kevdi Road 7-4		Ambavadi 5-0	w	
Nareshwar Road. 3-0			w; t	sl(pr); 4tl; mq; dg; ch.
Nandod 12-0		Local	w; rv	2tl; dg; ch.
Netrang 10-0		Dehali 4-0	w; str	
Amod 5-0	Amod 6-0		w	cs(c); tl; mq.
			w	Deserted.
Jambusar 12-0		Local	w	sl(pr); cs(c); mq.

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385	Jabugām VL જાબુગામ ...	E ;	6-4	6·5;	1241;	205;	1231	Jankhavav	5-0
386	Jāgeśvar VG જાગેશ્વર ...	SW;	24-0	1·3;	528;	102;	499	Dahej	4-0
387	Jamanī DP જામની ...	SE;	10-0	1·5;	182;	28;	169		
388	Jamaṇīyā VL જામણીયા...	SE;	13-6	1·1;	330;	39;	330	Jankhavav	5-0
389	Jambār DP જાંબાર ...	W;	5-0	1·5;	182;	28;	157	Dediapada	5-0
390	Jāmboī JD જાંબોઈ ...	E;	9-0	1·2;	701;	155;	651	Umalla	5-0
391	Jambusar JB જંબુસર ...	H.Q.		1·8;	14244;	2447;	3445	Local	
392	Jambusar (Non-Municipal area) JB જંબુસર				195;	33;	141	Local	
393	Jāmbvāī DP જાંબવાઈ ...	S;	7-0	0·1					
394	Jamolī JD જામોલી ...	S;	13-0	1·3;	149;	27;	149	Umalla	2-0
395	Jandhār BR જંધાર ...	NE;	9-0	2·9;	1367;	266;	1218	Local	
396	Jaṇīādrā VG જાણીઆદ્રા ...	W;	16-0	4·0;	552;	116;	297	Local	
397	Jantar ND જંતર ...	NE;	25-0	2·7;	37;	6;	32	Tanakhala	8-0
398	Jantrāṇ JB જંત્રાણ ...	W;	12-0	8·7;	1482;	308;	1367	Local	
399	Jāpharaparā JB જાફરપરા	E;	4-0	1·1;	236;	55;	214	Ankhi	1-0
400	Jarsāḍ JD જરસાડ ...	N;	5-4	1·2;	449;	94;	361	Rajpardi	1-0
401	Jarī DP જરી ...	S;	12-0	0·7;	20;	4;	20	Kevdi	8-0
402	Jāvali SR જાવલી ...	S;	10-0	0·2;	93;	14;	88	Korai	14-0
403	Jargām DP જરગામ ...	S;	8-0	1·5 ;	192 ;	35;	189		
404	Jesalpor ND જેસલપોર	N;	6-0	2·5;	655;	119;	652	Chandod	2 4
405	Jespor JD જેસપોર ...	S;	9-0	1·9;	168;	31;	157	Netrang	5-0
406	Jetpor HT જેતપોર ...	S ;	9-4	1·5 ;	251;	58;	246	Ilav	4-0
407	Jetpor ND જેતપોર ...	E;	22-0	0·3;	87;	12;	87	Tanakhala	6-0
408	Jetpor ND જેતપોર ...	S;	3-0	0·4;	332;	56;	228	Rajpipla	2-0
409	Jhāḍeśvar BR ઝાડેશ્વર ...	NE;	3-0	3·9;	2533;	478;	1221	Local	
410	Jhāḍolī DP ઝાડોલી ...	N;	12-0	2·2;	43;	6;	41		

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities.	Institutions and other information.
Jankhavav 5-0		Dehali 2-0	w; str	2sl (pr); Gebansha Pir. fr. Phg. Sud. 7; tl; dg; Dargah of Gebansha Pir.
Dahej 4-0		Dahej 3-0	w	sl (pr); tl; ch.
		Kakadpada 1-0	w	
Jankhavav 5 0		Dehali 6-0	w	
Kevdi Rd. 7-0		Dediapada 7-0	w	
Umalla 5-0		Umalla 2-0	w	sl (pr); 2tl; dg.
Local		Local	w	sl (8pr, h) Mun; cs(2c); fr. Gandalsha, Gokul Ashtami, Dassehra, Gandabapu, Bakarshapir, Lalsha Behramsha; 26tl; 8mq. 6dg; 2dh; gym; ch; 3lib; church; 11dp; Electricity ; taluka H.Q.
Local		Local		
				Deserted.
Umalla 2-0			rv; str	
N.bipur 3-0			w;	2sl (pr); cs(c); mq; 4dg; lib; dp.
Sambheti 1-0			w;t	sl (pr); cs(c); 2tl; M; lib; dp.
Tanakhala 8-0			str	
Kora 3-0		Local	w; t	sl (pr); cs(c); tl; M; mq; 3dg; dh; ch; lib.
Ankhi 1-0		Jambusar 6-0	w	sl (pr); tl; dp.
Rajpardi 1-0		Vanakpor 1-4	w	sl (pr); 3tl ; 2dg; dh.
Kevdi Road 8-0		Dediapada 12-0		
Kavdi 32-0	Selamba .. 3	Selamba 6-0	str	
......		Kakadpada 2-0	rv	
Chandod 2-4		Local	w	sl (pr); ch.
Goratia 1-0			w	cs (mp) ; tl; Hanuman temple.
Kim 19-0	Ilav .. 4	Ilav 5-0	w	tl.
Tanakhala 6-0			str	
Rajpipla 2-0			w; str	mq.
Broach 3-0		0-3	w	2sl (pr); pyt; cs (c, mp); 12tl; dg; 2dh; ch; lib; 4dp; well laid out village.
.....		Dediapada 4-0	t; str	

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411	Jhagaḍīā	JD	ઝગડીઆ	H.Q.		3·7	2594	311	858	Local	
412	Jhājhapor	JD	ઝાઝપોર	S	10–0	1·3	57	12	37	Dharoli	5–0
413	Jhāk	DP	ઝાક	SW	12–0	3·1	432	74	420	Kevdi	3–0
414	Jhāmaḍī	JB	ઝામડી	W	13–0	5·2	622	131	570	Sigam	3–0
415	Jhāmpā	ND	ઝાંપા	S	5–0	2·0	42	7	42	Rajpipla	6–4
416	Jhaṇor	BR	ઝણોર	NE	12–0	8·6	2994	618	1218	Nabipur	6–0
417	Jharaṇā	JD	ઝરણા	SE	25–0	0·6	170	25	169	Netrang	4–0
418	Jharaṇāvādī	DP	ઝરણાવાડી	SW	2–0	1·1	267	41	263		
419	Jharaṇāvāḍī	VL	ઝરણાવાડી	E	17–0	1·6	298	54	298	Netrang	7–0
420	Jharavāṇī	ND	ઝરવાણી	SE	15-0	10·3	556	70	544	Gardeshwar	9–0
421	Jharīyā	ND	ઝરીયા	NE	16 4	1·0	388	79	374	Pratapnagar	4–0
422	Jharṇā	VL	ઝરણા	E	13–0	2·9	751	146	748	Dolatpur	4–0
423	Jhāpā	DF	ઝાપા	NW	3–0	0·3					
424	Jher	ND	ઝેર	E	19–0	4·5	569	101	543	Tanakhala	7–0
425	Jhulatā Āmbā	ND	ઝુલતા આંબા	E	22–4	0 2					
426	Jīor	ND	જીઓર	N	9–0	3·9	666	142	330	Lachhras	4–0
427	Jītagaḍh	ND	જીતગઢ	SE	4–0	2·0	267	46	228	Rajpipla	6–0
428	Jītālī	AK	જીતાલી	E	6–0	5·1	1570	338	1384	Local	
429	Jītanagar	ND	જીતનગર	SE	3 0	3·7	452	89	283	Rajpipla	4–0
430	Joḍavāṇ	SR	જોડવાણ	S	12–0	1·4	259	40	244	Korai	10–0
431	Jolavā	VG	જોલવા	SW	15–6	3·5	438	97	257	Dahej	5–0
432	Jolī	VL	જોલી	SW	7–0	0·9	147	32	147	Valia	7–0
433	Joraṭī	DP	જોરટી	S	10-0	0 1					
434	Junā Mosadā	DP	જુના મોસદા	NE	10 0	1·6	110	15	107		
435	Junā Rāj	ND	જુના રાજ.	SE	9–0	20·4	482	79	375	Rajpipla	10-0
436	Junā Rājuvāḍīā	ND	જુના રાજુવાડીઆ	W	13–0	3·5	1450	271	1232	Pratapnagar	2–0

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities;	Institutions and other information.
Local		Local	w; t	sl (pr); cs (3c); fr. Kt. Sud. 15 and Rakhav Devji Mahraj fr. Ct. Sud. 15; 5tl; ch; 3dp; church; taluka H. Q.; P. W. D. & D. L. B Bungalows; temples of Mahalaxmi, Rakhavdevji, Ranchhod, Bhidbhanjan and Lalji Maharaj.
Local			str	
Kevdi Road 3-0		Dediapada 13-0	str	
Kora 8-0			w; t	sl (pr); tl-Mahadev.
Rajpipla 6-4		0-4	rv	
Varedia 4-4		Local	w; rv	sl (2pr, 2m); pyt; cs (mp); 11tl mq; 2dg; dh; ch; lib; 2dp; lift irrigation scheme.
Netrang 4-0		Netrang 3-0	str	
		Dediapada 1-0	str	ch.
Netrang 7-0		Netrang 6-4	w; rv	
Rajpipla 18-0		Indravarna 8-0	w; str	sl (pr).
Juna-Rajuvadia. 4-0		Indravarna 6-0	w; str	cs (mp); tl ; dh.
Netrang 6-0			w; str	sl (pr);
				Deserted.
Tanakhala 7-0			str.	sl (pr).
				Deserted.
Chandod 3-0		Jesalpore 2-0	w	sl (pr); Dubheshwar fr. last Saturday of Shravan; 3tl; 2dg; 5dh; ch tl.
Rajpipla 6-0		Rajpipla 5-0	rv	
Dadhal 1-0		Dadhal 1-0	w	sl (2 pr, m); cs (c); Dhingla Dhingli fr. Bdp; tl; 2mq; dg; ch; lib; Church.
Rajpipla 4-0		Local	w; t; rv	Mani Nageshwar Mahadev fr. Mahashivaratri Mg. Vad. 13; tl; 2dg; old temple of Mani Nageshwar Mahaduv.
Mathibara 15-0	Local Mon. ..	Selamba 10-0	str.	sl (pr); mq.
Sambheti 4-0		Local	w; t	sl (pr); 2tl ; dg ; ch.
Mangrol 7-4		Mangrol 4-0	w; t	
				Deserted.
....		Dediapada 10-0	t ; str	Ch; dp.
Rajpipla 10-0		Rajpipla 10-0	str	2tl ; 2dg; Lal Darwaza and Juni Haveli.
Juna Rajuvadia. 2-0		Pratapnagar 2-0	w	sl (pr); 2tl; dg; 2dh; ch; ancient Shivalinga of Somnath Mahadev.

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437	Junavad	ND	જુનવદ ...	SE;	7–0	1·5;	265;	44;	265	Vavdi	3–0
438	Juned	VG	જુ`ઇદ ...	SE;	3–0	1·9;	212;	38;	153	Vagra	3–0
439	Kābalā	AD	કાબલા ...	NE;	7–4	2·6;	526;	114;	480	Sarbhan	3–0
440	Kābarī Paṭhār	DP	કાબરી પઠાર	NW;	6–0	1·4;	101;	13;	96	Dediapada	1–0
441	Kadavālī	DP	કદવાલી ...	SW;	5–0	0·3					
442	Kadavālī	JD	કદવાલી	E;	9–4	1·4;	98;	21;	92	Rajpardi	5–0
443	Kaḍod	BR	કડોદ ...	NE;	8–0	0·6;	87;	21;	83	Shuklatirth	1–4
444	Kaḍodarā	VG	કડોદરા ...	W;	17–0	5·0;	940;	206;	833	Pakhajan	6–0
445	Kahān	BR	કહાન ...	N;	12–0	2·0;	728;	160;	492	Kisnad	2–0
446	Kahānavā	JB	કહાનવા ...	E;	17–0	3·7;	3869;	852;	3627	Local	
447	Kākaḍakuī	VL	કાકડકુઇ ...	E;	21–0	1·1;	555;	64;	555	Netrang	7–0
448	Kākaḍavā	ND	કાકડવા ...	SW;	10–0	2·4;	217;	46;	199	Pratapnagar	2–0
449	Kākaḍapāḍī	SR	કાકડપાડી	S;	12–0	0·3;	113;	18;	109	Korai	15–0
450	Kākaḍapāḍā	DP	કાકડપાડા	S;	8–0	1·7;	318;	56;	260	Dediapada	8–0
451	Kākalapor	JD	કાકલપોર ...	N;	12–0	0·7;	458;	82;	425	Umalla	6–0
452	Kākarapāḍā	JD	કાકરપાડા	S;	16–0	1·6;	21;	4;	21	Netrang	7–0
453	Kākarīmau	SR	કાકરીમઉ...	S;	10–0	0·4					
454	Kalādarā	VG	કલાદરા ...	S;	16–0	6·7;	973;	197;	689	Pakhajan	8–0
455	Kalak	JB	કલક ...	W.	4–0	6·2;	978;	181;	856	Local	
456	Kalam	HT	કલમ ...	SE;	4–0	1·7;	448;	100;	436	Shera	2–0
457	Kalam	VG	કલમ ...	W;	8–0	3·9;	966;	208;	865	Vagra	5–0
458	Kalamakuvā	DP	કલમકુવા	S;	4–0	0·7					
459	Kalatar	DP	કળતર ...	E;	6–0	0·3;	39;	6;	39	Dediapada	4–0
460	Kalī Makavāṇā	ND	કલી મકવાણા	E;	6–0	2·0;	497;	83;	360	Vavdi	2–0
461	Kalīyārī	JB	કલીયારી ...	W;	11–0	1·7;	383;	77;	363	Sigam	3–0
462	Kālvat	DP	કાલવટ ...	N;	8–0	3·5					
463	Kāmalīā	VL	કામલીઆ ...	E;	10–0	1·1;	478;	74;	474	Netrang	8–0
464	Kamboli	BR	કંબોલી ...	N ;	18–0	1·7 ;	844;	189;	774	Local	

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities	Institutions and other information.
Rajpipla 7-0		Zunda 1-0	w	
Vagra 3-0		Ankot 1-4	w	tl.
Amod 5-4	Amod .. 5-4	Sarbhan 3-0	w; rv	sl (pr); 2tl; dg; dh; lib.
Netrang 1-0		Gajargota	t ; str	sl (pr).
......				Deserted.
Rajpardi 5-0			w	
Broach 8-0		Local	w; rv	fr. Adhik Vaisakh every 18th year; tl; dh; old and historic temple of Koreshwar Mahadev.
Sambheti 1-0			w; t	sl (pr) ; cs (c) ; 2tl ; M ; dh ; ch ; lib; dp.
Varedia 1-0		Tankaria 2-0	w	sl (pr) ; cs (c); mq ; dg.
Kural 4-0		Karkhadia 3-0	w; t	2sl (pr); pyt ; cs (c, i); fr. Bunglo-Bdp. Sud. 11, Jhunkhan Ekadashi ; 3tl ; mq ; dg ; ch; lib.
Netrang 7-0		Thawa 1-0		sl. (pr)
Pratapnagar 2-0		Gam'kuva 1-4	str	
Kavdi 25-0	Selamba Sun. 8-0	Sagbara 9-0	w	
Kevdi Road 15-0		Local	w; str	sl (pr); ch ; dp.
Umalla 6-0		Rajpardi 5-0	w; rv	tl.
Netrang 7-0		Netrang 5-0	str	
......				Deserted.
Pakhajan 8-0			w	sl (pr) ; cs (c) ; 5tl; M ; 2dg; ch ; lib.
Jambusar 4-0		Local	w	sl (pr) ; cs (mp) . 3tl ; mq; dg; dh; ch ; lib ; dp.
Ankleshwar 13-0	Hansot Sun. 3-0	Shera 2-4	w; t	sl (pr) ; 2 tl ; lib.
Vagra 5-0		1-4		sl (pr) ; tl; mq; 3dg; dh; lib ; Church ; dp.
......				Deserted.
Rajpipla 18-0		Ambavadi 3-0	str	
Rajpipla 7-0		Local	w	sl (pr); Dhuleti fr. Phg; 1 ; tl; Nilkantheshwar Mahadev temple.
Kora 6-0			w	sl (pr); tl ; lib.
......				Deserted.
Netrang 8-0		Netrang 5-0	w ; str	sl (pr) ; tl.
Palej 3-0		Local	w	sl (pr) ; cs (c) mq ; lib.

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465 Kamodvāv DP કમોદવાવ	SE;	11-0	1·2;	217;	34;	210	......	
466 Kaṇabīpiṭhā DP કણબીપીઠા	SE;	8-0	1·9;	74;	10;	73	......	
467 Kanabuḍī DP કનબુડી ...	SE;	5-0	...	140;	22;	136	......	
468 Kanakhāḍī SR કનખાડી	E;	2-0	0·3;	147;	32;	138	Korai	11-0
469 Kānāpāḍā SR કાનાપાડા...	E;	5-0	0·7				......	
470 Kaṇapor ND કણપોર ...	SW;	7-0	0·4;	99;	17;	99	Amletha	2-0
471 Kānavā AK કાનવા ...	W;	6-0	0·7;	123;	23;	123	Shera	5-0
472 Kānadā DP કાનદા ...	E;	14-0	1·4;	69;	14;	69	Dediapada	1-50
473 Kāndaroj ND કાંદરોજ...	SW;	11-0	2·4;	657;	111;	451	Pratapnagar	0-4
474 Kanerāv VL કનેરાવ ...	S;	1-2	0·9;	298;	62;	289	Valia	1-2
475 Kanagām JB કનગામ ...	S;	11-0	6·7;	1262;	254;	1103	Kavi	3-0
476 Kaṇajaī DP કણજઈ ...	NE;	24-0	3·3;	252;	40;	242	Dediapada	24-0
477 Kañjhāl DP કંઝાલ ...	N;	9-0	4·4;	233;	35;	233	......	
478 Kaṇajī DP કણજી ...	S;	8-0	0·4;	74;	9;	71	......	
479 Kaṅkālā DP કંકાલા ...	E;	2-0	1·0;	33;	5;	33	Dediapada	3-0
480 Kāṅkarīyā AD કાંકરીયા...	E;	2-4		202;	36;	187	Amod	1-0
481 Kānsavā BR કાંસવા ..	SW;	10-8	2·4;	578;	153;	549	......	
482 Kānsiā AK કાંસીઆ ...	E;	5-4	5·1;	1385;	270;	1316	Mandva Bujarg	1-0
483 Kanthārīā BR કંથારીઆ...	NW;	5-0	2·0;	1691;	306;	1097	Broach	2-0
484 Kaṇṭiājāḷ HT કંટીઆજાળ	SW;	13-6	9·0;	1018;	210;	832	Hansot	13-0
485 Kāṇṭīdarā JD કાંટીદરા ...	N;	8-6	0·9;	303;	58;	240	Rajpardi	3-0
486 Kāṇṭīpāḍā JD કાંટીપાડા ..	E;	17-0	4·0;	732;	144;	718	Netrang	3-0
487 Kāṇṭīpāṇī DP કાંટીપાણી...	SE;	8-0	0·5				......	
488 Kanasāgar JB કનસાગર ...	W;	12-0	2·4;	230;	47;	198	Tankari	3-0
489 Kāṇṭol JD કાંટોલ ...	S;	10-0	2·6;	152;	25;	150	Umalla	4-0
490 Kapalasāḍī JD કપલસાડી	SW;	3-0	4·0;	1119;	226;	988	Jhagadia	2-0
491 Kapāṭ JD કપાટ ...	E;	12-0	1·3;	306;	61;	287	Umalla	1-4
492 Kāpodarā AK કાપોદરા ...	E;	3-0	1·0;	451;	111;	414	Ankleshwar	3-[illegible]
493 Kapurīā JB કપુરીઆ ...	W;	14-0	4·3;	297;	63;	293	Tankaria	3-0
494 Karā VL કરા ...	S;	7-0	1·5;	657;	112;	560	Valia	7-0

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities ;	Institution and other information.
		Ambavadi 2-4	w; str	
		Kakadpada 3-0	w ; str	
		Medyusang 2-2	w; str	
Kavdi 28-0	Selamba Sun. 2-0	Sagbara 1-0	w; str	tl.
				Deserted.
Amletha 2-0			w	
Ankleshwar 7-0		Sajod 1-0	w; t	
Netrang 30-0			t	
Juna Rajuvadia 4		Nikoli 2-0	rv	sl (pr) ; 3tl ; 2dg.
Jhagadia 13-2		Valia 1-0	w ; t	
Local			w	sl (pr); cs (c); 2tl; dg ; ch; lib; dp.
Netrang 42-0		Ambavadi 9-0	str	
		Dediapada	w; sp; str	
		Dediapada 22-0	rv	
Netrang 20-0		Dediapada 4-0	str	
Amod 1-4	Amod .. 1-0	Amod 1-4	w	
		Nawetha 2-0	w	sl (pr) ; Bhuleshwar Mahadev fr. Ps. Sud. 12-13; ; 3tl; M; dh; ch; lib.
Broach 3-0		Chhapra 2-0	w; rv	sl (Pr) ; pyt; tl; dp.
Local		Broach 2-0	w	2sl (pr); cs (c) mq; dg ; ch; lib.
Kim 13-0	Hansot .. 13-0	Ilav 10-0	w	sl (pr); cs (c) ; tl ; ch.
Rajpardi 3-0		Vanakpor 1-0	w	sl (pr) ; tl ; dh.
Netrang 3-0			w ; str	sl (pr) ; cs (c) ; tl.
				Deserted.
Kora 6-0		Tankari 4-0	t	mq.
Umalla 4-0		Umalla 4-0	sp; str	sl (pr).
Gumandev 1-0		Gumandev 0-4	w; str	sl (pr) ; cs (mp); Gebansa Pir fr. Mg. Sud. 15 ; 3tl; mq ; dg; ch; temples of Kankeshwar Mahadev, Veraimata and Gopachohan.
Umalla 1-4		Umalla 2-0	str	
Ankleshwar 3-0		Ankleshwar 3-0	w	sl (pr) ; cs (c) ; mq; 2dg.
Jambusar 14-0		Dudhivav 1-0	w	ch.
Mangrol 4-0		Mangrol 3-0	w; rv	sl (pr). ; 3tl ; ch ; lib ; dp.

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495 Karāḍ JD કરાડ ...	E; 2-4	1·6; 404; 79; 402	Rajpardi 4-0
496 Karagaṭ BR કરગટ ...	NE; 10-0	1·7; 317; 62; 216	Nabipur 1-0
497 Karamāḍ JB કરમાડ ...	W; 4-0	2·7; 841; 196; 767	Jambusar 4-0
498 Kāranṭhā ND કરાંઠા ...	E; 5-0	2·9; 819; 159; 630	Rajpipla 4-0
499 Karārvel AK કરારવેળ ...	E; 7-4	2·7; 504; 109; 488	Kharachi Boridra 1-4
500 Karasāḍ VL કરસાડ ...	S; 4-0	1·5; 511; 106; 481	Valia 4-0
501 Kārelā BR કારેલા ...	N; 11-0	3·3; 823; 160; 749	......
502 Kārelī ND કારેલાં ...	NE; 19-0	0·6; 493; 78; 484	Tanakhala 5-0
503 Kārelī JB કારેલી ...	E; 16-0	8·3; 2811; 583; 2142	Local
504 Kareṇā AD કરેણા ...	E; 12-0	2·6, 481; 107; 418	Amod 1-0
505 Karjaṇ BR કરજણ ..	NE; 10-0	1·7; 590; 109; 570	Nabipur 4-4
506 Karmāḍ BR કરમાડ ...	NW; 6-0	1·8; 1700; 306; 1476	Local
507 Karmālī BR કરમાલી ..	NE; 10-4	1·7; 437; 80; 435	Nabipur 4-4
508 Kāsad BR કાસદ ...	N. 6-0	3·3; 427; 88; 419	Derol 2-0
509 Karmālī AK કરમાળી ...	S; 7-0	1·0; 314; 74; 309	Panoli 2-4
510 Kāṭakhāḍī ND કાટખાડી...	E; 21-0	3·5; 117; 20; 117	Tanakhala 5-0
511 Katapor HT કતપોર ...	S; 7-0	21·4; 1373; 246; 1113	Hansot 7-0
512 Kaṭhodarā HT કઠોદરા ...	SE; 6-4	2·0; 342; 77; 340	Sisodra 2-0
513 Kaṭoh DP કટોહ ...	E; 10-0	0·3; 17; 3; 17	......
514 Kāvā JB કાવા ...	W. 5-0	8·0; 1242; 266; 1118	Jambusar 5-4
515 Kavaciā VL કવચીઆ ...	E; 18-6	2·9; 687; 107; 683	Jankhavav 7-0
516 Kāvalī JB કાવલી ...	S; 7-0	4·0; 960; 175; 933	Sarod 4-0
517 Kāv. JB કાવી ...	S; 17-0	12·9; 5426; 1070; 3375	Local
518 Kaviṭhā BR કવીઠા ...	NE; 10-0	2·8; 1081; 221; 572	Local
519 Kel DP કેલ ...	S; 10-0	1·3; 36; 8; 36	Kevdi 6-0
520 Kel SR કેલ ...	S; 4-0	1·4; 352; 55; 300	Korai 13-0
521 Keladā DP કેલદા ...	E; 14-0	3·5; 7; 1; 7	......
522 Kelavīkuvā VL કેલવીકુવા.	E; 17-0	2·2; 398; 76; 398	Netrang 1-4
523 Kelod BR કેલોદ ...	NW; 11-0	4·3; 1080; 204; 857	Local

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities :	Institutions and other information.
Jhagadia 1-0		Local	w ; str	tl; dg ; dh.
Nabipur 1-0				sl (pr) ; tl ; mq ; dg.
Koteshwar 0-4		Simaj Centre 1-0	w	sl (pr) ; 2tl ; M; dg; dh; lib.
Rajpipla 4-0		 1-0	w	sl (pr) ; 2tl ; ch.
Dadhal 2-0		Dadhal 1 4	w	sl (pr) ; cs (c) ; tl ; mq.
Mangrol 4-0		Valia 3-0	w ; t ;str	sl (pr); tl.
		Samni 3-0	w	sl (pr); cs (mp); 2tl ; dh ; lib.
Tanakhala 5-0			w	
Masar Road 7-0		Local	w	2sl (pr); 4tl; 2dg; dh ; ch ; lib., Church ; dp.
Amod	Amod .. 1-0	Local 0-4	w	sl (pr) ; cs (c); 2tl; ch.
Nabipur 4-4		Local	w	sl (pr) ; cs (c) ; 3tl; dg ; temples of Mahadevji, Ramji and Mataji.
Tham 3-0		Hinglot 2-0	pw	2sl (pr); cs (mp) ; mq ; 2dg; lib.
Nabipur 4-4		Kawitha 0-3	w	sl (pr) ; 2tl; dg ; ch ; temples of Mahadevji and Thakorji.
Tham 2-0		Derol 2-4	w	sl (pr) ; 2tl ; mq; 3dg; ch.
Panoli 2-4		Ankleshwar 8-0	w	cs (c); mq.
Tanakhala 5-0			rv	
Ankleshwar 20-0	Hansot .. 7-0	Ilav 7-0	w	2sl (pr) ; cs (mp); Koteshwar Mahadev fr. Ps. Vad 8-9; 5tl; mq; 5dg ; ch ; lib.
Panoli 4-0	Kosamba .. 3-4	Hansot 6-0	w ; t	sl (pr) ; tl ; dg ; ch.
Koteshwar 1-4		Local	w	sl (pr) ; 2cs (c) ; 2tl ; dg ; dh ; ch ; lib ; Church.
Jankhavav 7-0		Netrang 8-0	w ; str	sl (pr).
Kora 2-0		Kora 3-0	w	sl (pr) ; mq.
Local			w	3sl (pr) ; 2cs (c) ; 6tl ; 3mq ; 3dg ; ch ; 3lib ; 2dp ; Jain Dehrasar.
Nabipur 3-0		Local	w	2sl (pr); pyt; cs (2c) ; 3tl ; mq ; dg ; dh ; ch; lib ; 2dp.
Kevdi Road 6-0		Dediapada 11-0		
Kavdi 20-0	Selamba Sun. 4-0	Sagbara 3-0	str	
		Dediapada 20-0	str	
Netrang 1-4		0-1	w	
Local		Local	w	sl (pr); 3tl; M; mq; dg; dh; lib; dp ; Church.

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524	Keravāḍā AD કેરવાડા ...	W;	7-0	4·9;	1831;	385;	1032	Local	
525	Kesalu AD કેસલુ ...	SE;	8-0	2·2;	624;	179;	543	Local	
526	Kesaravā JD કેસરવા ...	NE;	15-0	2·4;	106;	24;	106	Pratapnagar	1-4
527	Kesargām VL કેસરગામ ...	E;	7-2	1·9;	197;	40;	197	Dolatpur	2-0
528	Keśarol BR કેશરોલ ...	W;	12-0	3·0;	446;	96;	340	Broach	12-0
529	Keśvāṇa VG કેશવાણ ...	W;	9-0	7·7;	1072;	248;	989	Pakhajan	4-0
530	Kevaḍī DP કેવડી ...	S;	9-0	1·3;	415;	70;	382	Local	
531	Kevaḍī SR કેવડી ...	S;	3-0	0·6;	70;	13;	66	Korai	13-0
532	Kevaḍīā ND કેવડીઆ ...	E;	13-4	2·4;	437;	82;	412	Gardeshwar	2-0
533	Khaḍagadā ND ખડગદા...	NE;	14-0	2·4;	976;	158;	826	Gardeshwar	4-0
534	Khaḍakīmaū SR ખડકીમઉ	S;	10-0	0·6;	188;	27;	188	Korai	16-0
535	Khaḍakunī SR ખડકુની ...	E;	4-0	0·2;	85;	16;	81	Korai	8-0
536	Khaḍkanakhāḍī DP ખડકનખાડી	NW;	3-0	0·8;				......	
537	Khaḍkhaṇḍālī VG ખડખંડાલી ...	N;	2-4	1·4;	63;	15;	31	Vagra	2-4
538	Khaḍolī JD ખડોલી ...	N;	4-0	0·8;	232;	50;	211	Rajpardi	2-0
539	Khaiḍī SR ખૈડી ...	E;	12-0	0·8,	215;	26;	215	Korai	10-0
540	Khaiḍīpāḍā DP ખૈડીપાડા	SE;	10-0	0·4;				......	
541	Khājalī Dābaḍā DP ખાજલી દાબડા	SW;	7-0	1·9;	344;	51;	329	Netrang	14-0
542	Khākharīparā ND ખાખરી પરા ...	SW;	11-0	1·7;	199;	46;	187	Pratapnagar	1-4
543	Khālak JD ખાલક ...	NE;	13-0	1·5;	227;	45;	226	Pratapnagar	1-4
544	Khalavāṇī ND ખલવાણી	E;	17-0	2·5;	98;	18;	98	Gardeshwar	5-0
545	Khām DP ખામ ...	SW;	11-0	0·2;	97;	15;	73	......	
546	Khāman DP ખામન ...	E;	15-0	2·2;	41;	7;	41	Dediapada	20-0
547	Khāmapāḍā SR ખામપાડા	E;	6-0	0·4;	83;	11;	83	Korai	10-0
548	Khāmar ND ખામર ...	S;	5-0	1·0;	125;	19;	125	Rajpipla	4-0
549	Khāṃbh DP ખાંભ ...	S;	7-0					......	
550	Khāṃbhī DP ખાંભી ...	S;	9-0	0·3;				......	
551	Khāṃbhī Jamanī DP ખાંભી જમની	SE;	9-0	0·1;	66;	15;	57	Dediapada	9-0
552	Khānpor JB ખાનપોર ...	S;	4-0	11·0;	1308;	285;	1011	Local	

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities ;	Institutions and other information.
Tanchha	Amod 7	Local		2sl (pr) ; cs (c) ; fr. Vsk. Sud. 15 ; 2tl ; mq ; dg ; dh ; dp.
Samni 2-0	Amod 7	Samni 2-0	w	sl (pr) ; 3tl ; dh ; ch.
Pratapnagar 1-4		3-0	str	fr. Mg. Vad. 15.
Netrang 9-0		Dharoli 3-0	w ; str	
Broach 12-0		Nawetha 2-0	w ; t	sl (pr) ; tl ; ch.
Pakhajan 4-0		Local	w ; t	sl (pr) ; cs (c) ; tl ; M ; mq ; 2dg; ch ; Sanskar Kendra.
Local		Local	w ; str	
Local	Selamba Sun. 18	Sagbara 1-0	w	
Rajpipla 12-0		4-0	rv	sl (pr) ; fr. Mg. Vad. 14.
Rajpipla 16-0		5-0	w ; str	sl (pr)
Khanwara 13-0	Jodwan Mon. 4	Selamba 10-0	w	
Kavdi 30-0	Selamba Sun. 6	Selamba 2-0	w	
				Deserted.
Vagra 2-4		Local	w ; t	dg.
Rajpardi 2-0		Local		tl ; ch.
Kavdi 32-0	Selamba Sun. 4	Selamba 12-0	rv	
		Dediapada 11-0	w; str	Deserted.
Netrang 14-0		Thavagam 1-4	w; rv	
Juna Rajuvadia. 1-4		Gamkuva 1-4	str	
Pratapnagar 1-4		Pratapnagar 3-0	w; str	
Tanakhala 6-0		13-0	w	
		Thava 8-0	str	
Netrang 38-0			w	
Khanwara 15-0	Jodwan Mon. 1	Selamba 1-4	str	
Rajpipla 4-0			str	
				Deserted.
				Deserted.
Netrang 27-0		Ambavadi 1-0	w	
Jambusar 5-4			w	2sl (pr) ; cs (c) ; tl ; mq; dg. ch.

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553 Kharac HT ખરચ ...	SE;	11-0	2·8;	610;	129;	585	Kosamba	3-0
554 Kharacī JD ખરચી ...	W;	6-0	0·1;	514;	104;	463	Mandva	3-0
555 Kharacī Bhīlvādo JD ખરચી ભીલવાડો	W;	6-1	0·7;	363;	68;	351	Mandva	3-0
556 Kharcīpādā DP ખરચીપાડા	SW;	8-0	0·9;	144;	22;	138	Dediapada	11-0
557 Khardīpādā DP ખરડીપાડા	SW;	10-0	2·2;	336;	56;	333	......	
558 Khareṭā JD ખરેટા ..	E;	24-0	1·9;	406;	71;	405	Rajpipla	11-0
559 Khārīā JD ખારીઆ ...	S;	2-0	0·6;	160;	30;	92	Jhagadia	2-0
560 Kharoḍ AK ખરોડ ...	E;	5-6	3·1;	1281;	294;	1226	Panoli	2-0
561 Khāpar DP ખાપર ...	NW;	7-0	2·4;	84;	13;	84	Kevdi	10-0
562 Khāparabundhā DP ખાપરબુંધા	S;	8-0	0·2;	70;	12;	69	Kevdi	6-0
563 Khaṭām DP ખટામ ...	E;	5-0	0·3;	86;	13;	83	Dediapada	5-0
564 Khaṭām DP ખટામ ...	NE;	4-0	1·0;	148;	23;	148	Dediapada	5-0
565 Khāṭcar DP ખાટચર ...	S;	3-0	0·7				......	
566 Khevā SR ખેવા ...	E;	8-0	0·2;	87;	11;	86	Korai	10-0
567 Khoca·apāḍā SR ખોચરપાડા	E.	5-0	0·7;	367;	47;	367	Korai	10-0
568 Khoḍā Āṃbā DP ખોડા આંબા ..	SE;	9-0	0·9;	72;	9;	67	......	
569 Khojalavāsā ND ખોજલવાસા	SW;	8-0	1·2;	323;	60;	268	Amletha	1-0
570 Khojbal VG ખોજબળ ...	SW;	10-0	4·7;	827;	164;	661	Pakhajan	5-0
571 Khokharā Umar DP ખોખરા ઉમર	S;	1-0	1·1;	191;	28;	185	Dediapadaa	1-4
572 Kokharā Umar (Ḍuṃkhalvalū) DP ખોખરા ઉમર (ડુમખળવાળું)	NE;	23-0	1·3;	17;	3;	16	Dediapada	20-0
573 Khopī SR ખોપી ...	S;	12-0	8·0;	135;	22;	130	Korai	16-0
574 Khoṭā SR ખોટા ...	S;	13-0	1·0;	265;	43;	256	Korai	14-0
575 Khuḍadī DP ખુડદી ...	N;	3-0	1·6;	310;	44;	310	Dediapada	5-0
576 Khupar DP ખુપર ...	N;	5-0	0·6;	39;	8;	36	Dediapada	5-0
577 Khupar alias Barasaṇ DP ખુપર ઉર્ફે બરસણ	S;	11-0	0·5;	158;	28;	157	Kevdi	10-0

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Kosamba 3-0	Kosamba ... 3-0	Sunevkalla 6-0	w; t	sl (pr) ; tl ; mq ; dg ; ch.
Local		Local	w, t	sl (pr) ; cs (c) ; 2tl ; ch.
Boridra 0-1		Local	w ; t	cs (c).
Kevdi Road 6-0			str	
Netrang 9-0		Yal 1-0	str	
Jhagadia 2-0		Jhagadia 1-4	w	Akik stone quarries.
Panoli 2-0		Ankleshwar 5-4	w	sl (pr. m) ; cs (mp) fr. Ramzan 10; mq ; dg ; ch.
Kevdi Road 10-0		3-4	rv	
Kevdi Road 6-0		Dediapada 12-0	str	
			str	
Rajpipla 26-0		Dediapada 9-0	w; sp; str	
				Deserted.
Khanwara 15-0	Jodwan Mon. 1-0	Selamba 7-0	str	
Kavdi 32-0	Selamba Sun. 2-0	Selamba 1-4	str	
		Local	w	
Amleth 1-0			w ; str	
Pakhajan 5-0		Local	w , t	sl (pr) ; cs (mp); mq ; dg.
Netrang 16-0		Dediapada 1-0	str	
Rajpipla 30-0		Dediapada 17-0	str	
Kavdi 20-0	Selamba Sun. 8-0	Sagbara 10-0	w	
Kavdi 15-0	Jodwan Mon. 5-0	Selamba 8-0	w	sl (pr).
Netrang 22-0		Dediapada 3-0	str	
Netrang 12-0		Nighat 3-0	w ; str	
Kevdi Road 10-0		Dediapada 14-0	rv	

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578 Khuṭāāmbā ND ખુટાઆંબા	S;	13–0	2·1;	261;	42;	231	Rajpipla	14–0
579 Kīmoj JB કીમોજ ...	W;	12–0	3·6;	536;	113;	463	Sigam	3–0
580 Kīsmor DP કીસમોર ...	NW;	3–0	0·4				......	
581 Kīsnāḍ BR કીસનાડ ...	N;	18–0	2 4;	973;	188;	894	Local	...
582 Kocabār JD કોચબાર ...	S;	20–0	3·0;	455;	80;	449	Netrang	3–0
583 Koḍabā SR કોડબા ...	S;	2–0	0·4;	37;	6;	37	Korai	14–0
584 Koḍakhāḍī SR કોડખાડી...	S;	3–0	0·1;	27;	4;	27	Korai	9–0
585 Koḍavāv VL કોડવાવ ...	NE;	19–0	0·6;	41;	8;	35	Netrang	7–0
586 Kokam DP કોકમ ...	E;	21–0	5·3;	129;	21;	126	Dediapada	19–0
587 Kokati DP કોકતી ...	E;	24–0	0.8;	58;	12;	58	....	
588 Kolavaṇā AD કોલવણા ...	W;	6–0	4·2;	1292;	268;	895	Local	...
589 Kolīvāḍā JD કોલીવાડા ...	SE;	9–6	0 7;	108;	17;	74	Dharoli	4–0
590 Kolīvāḍā DP કોલીવાડા ...	NW;	8–0	0·3;	357;	47;	341	Dediapada	10–0
591 Kolīvāḍā (Bogaj) DP કોલીવાડા (બોગજ)	N;	3–0	1·0;	160;	23;	148	Dediapada	6–0
592 Kolīyāpāḍā JD કોલીયાપાડા	E;	15–0	3·8;	177;	28;	177	Umalla	6–0
593 Konḍh VL કોંઢ ...	W;	7–0	7·4;	1499;	309;	1240	Netrang	6–0
594 Konvāv DP કોનવાવ ...	SE;	6–0	1·8				....	
595 Korā (JB) કોરા ...	W;	9–0	5·2;	1255;	272;	968	Sarod	6–0
596 Kosamaḍī AK કોસમડી ...	E;	5–0	5·6;	1531;	313;	1411	Local	...
597 Kosamāḍī VL કોસમાડી ...	S;	6–6	1·2;	283;	50;	279	Sodgam	2–0
598 Koṭeśvar JB કોટેશ્વર ...	N;	3–0	1·2;	271;	48;	244	Sarod	6–0
599 Koṭhārā ND કોઠારા ...	N;	8–0	1·2;	386;	74;	377	Chandod	1–0
600 Koṭhī ND કોઠી ...	E;	14–0	1·2;	551;	91;	551	Gardeshwar	3–0
601 Koṭhī (Trālasā) BR કોઠી ત્રાલસા).	NW;	11-0	3·6;	1090;	168;	851	Local	...
602 Koṭhīār VG કોઠીઆર ...	S;	3–0	2·3;	444;	93;	421	Vagra	
603 Koṭhī Vātarasā AD કોઠી વાતરસા	E;	8–0	1·4;	392;	84;	329	Kurchan	2–0
604 Koṭiāmauva JD કોટીઆમૌવ	SE;	8–6	0·6;	42;	10;	19	Umalla	6–0

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Rajpipla 14-0		Local	w	
Kangam 1-4				sl(pr) ; tl ; dh ; ch ; lib.
				Deserted.
Palej 1-4		Simalia 0-4	w	sl(pr) ; cs(2c) ; 2tl ; mq ; ch ; lib.
Netrang 3-0		Netrang 4-0	w ; str	
Kavdi 22-0	Selamba Sun. 5-0	Local	w	
Kavdi 20-0	Selamba Sun. 2-4	Selamba 4-0	w	
Netrang 7-0		0-1	w ; str	
Netrang 37-0		Ded iapada 21-0	str	Hanuman Idol.
		Dadiapada 24-4	str	
Tanchha 4-0	Amod 8-4	Khadthan-dali. 2-0	w ; t	sl(pr) ; cs(mp) ; tl ; mq ; dg ; ch ; Mahadev temple.
Goratia 2-0			str	
Rajpipla 17-0		1-0	rv	
Netrang		Ghantoli 3-0	w ; str	
Umalla 6-0		Umalla 5-0	w ; str	
Netrang 6-0		Dadhal 4-0	w	sl(pr) ; cs(2c) ; 4tl ; mq ; 2dg; ch ; lib ; 2dp ; church. Deserted.
Local			w	sl(pr) ; tl (Lalji) ; mq ; dg ; ch ; lib ; dp.
Ankleshwar 4-0		Ankleshwar 4-0	w	2sl(pr) ; Pyt ; cs(c) ; Mitha ; Pir Urs. Safar 16 mq ; 2dg ; dh ; ch ; 2dp ; church .
Mangrol 7-0		Valia 3-0	w ; str	
Local		Jambusar 2-0	w	2tl.
Chandod 1-0		Poicha 2-0	rv	tl.
Rajpipla 15-0		5-0	w ; str	
Tralamath 2-4		Kuwadar 1-0	w ; t	sl(pr) ; cs(c) ; mq ; dg ; ch ; lib.
Vagra 4-4		Vagra 4-4	w ; t	sl(pr) ; cs(c) ; 2tl ; dg ; ch ; lib ; dp.
Samni 5-0	Amod 14-0	Dora 3-0	w	sl(pr) ; cs(c) ; mq ; 4dg ; dp.
Umalla 6-0			w	

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605 Kolīyād VG કોલીયાદ ...	S;	14-0	3·9;	362;	67;	255	Dahej	8-0
606 Koramāṇḍav DP કોરમાંડવ	S;	13-0	0·05					
607 Koyalī Māṇḍavī VL કોયલી માંડવી.	E;	19-0	2·8;	545;	91;	536	Netrang	6-0
608 Koyalī Vāv VL કોયલી વાવ	NE;	11-0	0·8;	47;	10;	45	Netrang	5-0
609 Koyalīvāv DP કોયલીવાવ	W;	3-0	0·6;	76.	12;	72	Dediapada	3-0
610 Kṛṣṇapurī JD કૃષ્ણપુરી ...	N;	8-4	1·3;	337;	34;	326	Bhalod	1-0
611 Kubhīyā ND કુભીયા ...	E;	19-6	0·6;	133;	21.	129	Gardeshwar	5-0
612 Kuḍādarā HT કુડાદરા ...	SE;	5-6	2·1;	316;	73;	310	Hansot	4-4
613 Kukaladā DP કુકલદા ...	S;	7-0	1·5;	230;	41;	226	Dediapada	7-0
614 Kukaravāḍā BR કુકરવાડા	SW.	4-0	2·1;	700;	136;	636	Broach	2-0
615 Kumasagām ND કુમસગામ.	W;	7-0	2·8;	496;	91;	491	Amletha	1-0
616 Kumbhakhāḍī DP કુંભખાડી.	S.	6-0	0·2;	33;	5.	33	Dediapada	6-0
617 Kumboḍīā VL કુંબોડીઆ	E;	16-0	2·9;	912;	157;	901	Netrang	3-0
618 Kunabār DP કુનબાર ...	SW;	4-0	1·7;	239;	43.	238	Dediapada.	4-0
619 Kuṇḍ JD કુંડ ...	E;	23-0	0·6					
620 Kundābār SR કુંદાબાર ...	S	10-0	0·3					
621 Kuṇḍhal JB કંઢલ ..	S;	2-0	2·6;	147;	29.	80	Jambusar	3-0
622 Kup VL કુપ ...	NE;	19-0	1·0.	93;	18;	93	Netrang	6-0
623 Kuracaṇ AD કુરચાણ ...	S.	9-0	2·8.	910.	183;	738	Local	
624 Kurī JD કુરી ...	S.	17-0	1·3;	225;	37.	225	Netrang	2-0
625 Kurlā alias Kallā BR કુર્લા ઉર્ફે કલ્લા.	W.	11-0	1·6;	421;	79.	208	Karmad	4-0
626 Kuṭilpāḍā DP કુટીલપાડા	NW;	8-0	1·1;	170.	24;	165		
627 Kuṭilśiśā DP કુટીલશીશા ..	SE;	9-0	0·8					
628 Kuvādar BR કુવાદર ...	N;	9-0	1·3;	339;	73;	107	Nabipur	3-0
629 Kuvaḍāvāḍī SR કુવડાવાડી.	S;	8-0	0·8;	34;	5;	34	Korai	28-0
630 Kuvarakhāḍī SR કુવરખાડી.	S;	12-0	0·2;	13.	2;	13	Korai	20-0
631 Kuvarparā JD કુવરપરા ...	E;	3-0	1·5;	128;	29;	104	Jhagadia	1-4
632 Kuyadā SR કુયદા ...	E;	3-0	0·8;	315;	57;	288	Korai	7-0
633 Kuyālā R કુયાલા ...	E;	6-0	0·6;	198;	28;	191	Korai	9-0

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Sambheti	7-0				Atali	1-4	w	sl (pr) ; tl ; dg.
					......			Deserted.
Netrang	6-0				Netrang	6-0	w ; rv	sl (pr).
Netrang	5-0				Dharoli	1-4	w ; str	
Netrang	12-0				Local		w ; str	
Kora	1-0				Bhalod	1-0	rv	Mahashivaratri fr. Mg. Vad 13; 2tl ; dg ; dh.
Tanakhala	5-0				Indravarna	10-0	rv	
Kosamba	6-0	Hansot	..	4-4	.....		w	2tl ; dg.
Kevdi Road	14-0				Kakadpada	1-0	w ; str	sl (pr).
Broach	2-0				Local		w ; rv	sl (pr) ; tl ; dg.
Amletha	1-0				Local		w	sl (pr) : tl.
Kevdi Road	12-0				Kakadpada	1-0	rv	
Netrang	3-0				Netrang	3-0	w ; rv	sl (pr) ; Idols of ancient temples.
Netrang	12-0				Nighat	3-0	w ; str	ch.
	..				.....			Deserted.
	..				......			Deserted.
Jambusar	3-0				.....		w	M ; dg.
Netrang	6-0				Local		w ; str	
Samni	3-0	Amod	..	8-0	Samni	3-0	w ; t	sl (pr) ; 2tl ; mq ; dg ; ch.
Netrang	2-0				Netrang	3-0	str	cs (c).
Tralsamath	6-0				Vesadara	1-0	w	sl (pr); cs (mp) ; 2tl ; dg ; ch ; dp.
	..					2-4	w ; rv	
	..							Deserted.
Nabipur	3-0				Local		w	sl (pr) ; pyt ; cs (c) ; tl ; dh ; lib.
Kavdi	28-0	Selamba	Sun.	5-0				
Kavdi	33-0	Selamba	Sun.	14-0	Sagbara	4-4	w	
Jhagadia	1-4				Jhagadia	3-0	str	Akik stone quarries.
Kavdi	25-0	Selamba	Sun.	8-0	Selamba	0-1	str	
Kavdi	30-0	Selamba	Sun.	0-4	Selamba	6-0	str	

Serial No.; Village/Town name; Taluka abbreviation; Village/Town name in Gujarati.	Direction from the Taluka/Peta H.Q.; Travelling distance.		Area (sq. miles); Population, Households; Agricultural population.				Post Office; Distance.	
634 Lāchharas ND લાછરસ ...	NE;	5-0	3·9;	2727;	567;	2301	Local	
635 Lāḍavā DP લાડવા ...	N;	6-0	2·6;	116;	15;	108	Dediapada	1-0
636 Lakhīgām VG લખીગામ ...	SW;	23-0	4·1;	1132;	222;	932	Dahej	2-0
637 Lībāḍī SR લીબાડી . .	E;	12-0	0·3;	46;	8;	36	Korai	14-0
638 Līmaj JB લીમજ ...	W;	4-0	0·8;	350;	75;	300	Jambusar	2-0
639 Līmbāl VG લીંબાલ ...	SW;	22-4	0·6;	12;	2,	10	Dahej	4-0
640 Līmḍī ND લીમડી ...	E,	17-0	3·5;	390,	63;	351	Gardeshwar	6-0
641 Līmḍī VG લીમડી ...	W;	10-0	3·1;	389;	77;	332	Pakhajan	2-0
642 Līmeṭ JD લીમેટ ..	S,	10-0	2·3;	1161;	202,	1072	Local	
643 Līmkhetar ND લીમખેતર	NE,	24-0	2·0;	125;	20;	125	Tanakhala	7-0
644 Līmodarā JD લીમોદરા ...	N;	1-2	1·8;	1334;	254;	694	Jhagadia	1-0
645 Lodhaṇā ND લોઢણા ...	W;	7-0	0·5,	81;	11;	66	Amletha	2-0
646 Loṭaāmbā DP લોટઆંબા	S;	7-0	0·7;					
647 Luṇā VL લુણા ...	S;	3-6	2·7,	993;	172;	898	Sodgam	4-0
648 Luvārā VG લુવારા ...	SW.	24-0	3·6;	593,	121;	497	Dahej	3-0
649 Luvārā BR લુવારા ...	N;	6-0	1·0;	465;	87;	442	Nahipur	2-0
650 Macāmaḍī JD મચામડી ...	E;	17-4	1·3;	148;	21;	148	Netrang	6-0
651 Machāsarā AD મછાસરા...	W.	5-4	3·3,	1072;	213;	934	Amod	5-0
652 Madāphar JB મદાફર ..	W	12-0	3·8;	768;	141;	699	Tankari	4-0
653 Mādhavaparā JD માધવપરા	E;	5-2	1·9,	440,	111,	152	Rajpardi	0-1
654 Magaṇād JB મગણાદ ...	E;	3-0	5·6;	1381;	303,	1218	Jambusar	2-0
655 Magardev DP મગરદેવ ...	W;	7-0	1·2,	130;	20,	120	Dediapada	1-0
656 Mahammadpor Kamboir JB મહમ્મદપોર કંબોઇર	N;	17-0	1·3;	322,	67;	299		
657 Mahāparī JB મહાપરી ...	S,	2-0	1·1;	150;	28;	127	Jambusar	2-0
658 Mahudhalā BR મહુધલા ...	NW;	6-0	1·5;	772;	147;	583	Derol	1-4
659 Mahuḍīpāḍā ND મહુડીપાડા.	SW;	9-0	2·4;	67;	11;	67	Amletha	3-0
660 Mahuvāḍā JD મહુવાડા ...	E;	13-0	0·6;	171;	28;	171	Rajuwadia	3-0
661 Mahuvāḍā JD મહુવાડા ...	E;	12-0	0·5;	180;	30;	178	Umalla	0-4

Railway. St ; Distance.		Weekly Bazar ; Bazar Day ; Distance.			Motor Stand ; Distance.		Drinking water facilities;	Institutions and other inform t on.
Rrjpipla	3-0				Local		w	2sl (pr), pyt; cs (mp) ; 8tl ; mq ; dg ; dh ; lib. 2dp.
Netrang	1-0						str	
Dahej	2-0				Dahej	3-0	w ; t	sl (pr) ; Shivaratri fr. Mg. Vad 13; 2tl ; M ; 3dh.
Khanwara	14-0	Jodwan	Mon.	4-0	Selamba	8-0	rv	
Koteshwar	2-0				Local		w	sl (pr) ; 2tl.
Dahej	4-0				Dahej	4-0	w	tl ; dh.
Rajpipla	15-0					12-0	rv	sl (pr).
Pakhajan	2-0				Vagra	9-0	w	sl (pr) ; cs (c) ; tl ; mq ; dg.
Dadhal	6-0				Local		w ; rv	sl (pr); cs (c) ; 2tl ; dh ; Temples of Omkareshwar Madhadev and Durgadevi.
Tanakhala	7-0						w	
Jhagadia	1 0				Jhagadia	0-4	w ; rv	sl (pr) ; 5tl ; 2mq ; 4dg ; ch; illegible inscriptions on stones of an old well.
Kumasgam	1-0				Local		w ; str	
								Deserted.
Mangrol	5-0				Valia	3-0	w; t; str	sl (pr) ; tl ; dh ; ch.
Dahej	3-0				Dahej	3-0	w	sl (pr) ; tl.
Chavaj	1-4						w	sl (pr) ; mq.
Netrang	6-0						w ; str	
Amod	4-4	Amod	..	5-0	Amod	5-0	w	sl (pr) ; cs (c); mq; 51dg ; 1 big dargah and 50 small dargahs.
Kora	5-0				Tankari	5-0	w ; t	sl (pr) ; mq ; dg.
Rajpardi	0-1				Rajpardi	0-2	w	Sarsai mata fr. Sama pancham Bdp. Sud 5 ; tl ; dh ; dp.
Local					Jambusar	3-0	w ; t; rv	sl (pr); cs (c) ; Vaijnath Mahadev fr. Mg. Vad 13 ; Mahashivratri ; 7tl ; 3M; mq; dg; dh ; ch; lib; dp.
Netrang	1-0				Ghatoli	4-0		
							w	sl (pr) ; tl ; dg ; dh.
Jambusar	2-0				Jambusar	1-0	w ; t	tl ; dh.
Tralsamath	1-4				Derol	1-0	w ; t	sl (pr) ; cs (c) ; mq.
Amletha	3-0						str	
Juna Rajuwadia	3				Umalla	2-0	str	
Umalla	0-4				Umalla	2-0	str	

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662 Makarāṇ SR મકરાણ ..	S; 8-0	0 7; 50; 10; 50	Korai 26-0
663 Makatampor BR મકતમપોર	N; 2-4	3 3; 810; 173; 49	
664 Māl DP માલ ...	E; 26-0	3 4; 184; 36; 171	
665 Mālaṇapor HT માલણપોર	SE ; 5-6	1 9; 336; 69; 284	Ilav 3-4
666 Mālīpīpar JD માલીપીપર	E; 6-2	1·2; 256; 41; 256	Raipardi 3-0
667 Māljīparā JD માલજીપરા	E; 5-4	0 1; 70; 13; 52	Raipardi 3-0
668 Mālkīnpurā AD માલકીનપુરા	SE; 7-0	1 6; 351; 84 ; 318	Amod 7-0
669 Mālpor JD માલપોર ...	S; 3-0	1·4; 469; 82; 450	Jhagadia 3-0
670 Mālpor JB માલપોર ...	W; 16-0	11 9, 1274; 258; 953	Bhadkodra 1-4
671 Manāḍ BR મનાડ ...	SW; 12-0	1 5; 392; 79; 364	
672 Māṇakuvā ND માણકુવા ...	NE; 17-0	0 4; 159; 23; 159	Gardeshwar 5-0
673 Mānasaṅgpurā AD માનસંગપુરા	W; 3-0	. 99, 20; 95	Amod 2-0
674 Māñc BR માંચ ...	NE. 13-0	4 1; 573; 158; 542	Broach 12-0
675 Maṇchīpāḍā DP મંછીપાડા	W; 15-0	1 4. 135; 18; 117	Dediapada 10-0
676 Maṇḍālā DP મંડાળા ...	SW; 10-0	2 0; 623 83; 619	Netrang 12-0
677 Māṇḍaṅ ND માંડણ ...	SE; 13-0	1 1, 42; 9; 42	Rajpipla 11-0
678 Māṇḍaṇ (Gorāvāḷū) ND માંડણ (ગોરાવાળું)	S; 10-0	2 2; 146; 23; 124	Gardeshwar 9-0
679 Māṇḍavī JD માંડવી ...	E; 11-0	0·5; 47; 7, 47	Umalla 6-0
680 Māṇḍvā Bujarg AK માંડવા બુજર્ગ	E; 5-4	2 3; 2947; 554; 2561	Local
681 Maṅgalesvar BR મંગલેશ્વર	NE; 12-0	3·3; 959; 225; 829	Shuklatirth 1-0
682 Māṇgarol HT માંગરોલ ...	SE; 3-2	1·0; 358; 79 ; 352	Shera 2-0
683 Māṅgarol ND માંગરોળ ...	NE; 8-0	0·4; 834; 182; 644	Lachhras 3-0
684 Māṅgarol AD માંગરોળ ...	W; 7-0	4 1; 490; 89; 461	Amod 6-0
685 Maṇjolā AD મંજોલા ...	E; 7-0	1·8; 489; 100; 446	Matar 2-4
686 Māṅkaḍā Āmbā ND માંકડા આંબા	NE; 24-0	2 4; 126; 26; 93	Tanakhala 10-0
687 Māṅkaḍkhāḍā ND માંકડખાડા	E; 28-0	6·3; 164; 25; 164	Gardeshwar 16-0

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities.	Institutions and other information.
Kavdi 20-0	Selamba Sun. 6-0	Chopadav 5-0	str .	
		Broach 1-4	w t	sl (pr) : Maha Rudranath fr. Shr. every Sunday : 2tl · 2dg.
		Dadiapada 26-4	w · str	
Ankleshwar 19-0	Ilav ... 3 4	Raima 1-4	w ; t	sl (pr) ; cs (c) ; tl ; ch.
Rajpardi 3-0			str	sl (pr) · pyt
Raipardi 3-0			str	pyt.
Amod 7-0	Amod ... 7-0	Danda 2-0	w : t	sl (pr); cs (c); tl ; ch.
Dholi Kuva 1-0		Jhagadia 3-1	w ; t	sl (pr).
Kora 9-4		Local	w	sl (pr) ; cs (c) , 3tl ; M : dg ; ch.
		Nawetha 3-0	w; t	sl (pr) ; 2tl; dg; ch.
Tanakhala 5-0			w	
Amod 2-0	Amod ... 2-0	Amod 3-0	w	fr. Phg. Sud. 6 ; dg.
Broach 12-0			w	sl (pr) ; mq ; dg.
Netrang 1-0				
Netrang 12-0		Thavagam 1-4	w ; rv	sl (pr); old inscriptions on four stone pillars.
Rajpipla 11-0		Local	w	
Rajpipla 18-0		Indravarna 4-0	str	
Umalla 6-0		Umalla 6-0	w, str	
Boridra 2-0			w	2sl (pr) ; pyt; cs (c); 2tl; mq; ch; lib; dp.
Jhagadia 3-0		Local	w; rv	sl (pr) ; cs (mp); Kabirvad fr. Kt. Sud. 14-15 ; 5tl; lib; dp; Kabirvad; temple of *Varah* (Boar) incarnation.
Ankleshwar 12-0	Hansot ... 3-4	Shera 1-4	w	sl (pr) ; 2tl ; dh; ch; lib ; dp.
Rajpipla 11-0		Local	rv	sl (pr); cs (c) ; Shivaratri fr. Mg. Vad. 13 ; 6tl ; ch ; lib.
Amod 6-0	Amod ... 6-0		w	sl (pr) ; mq.
Amod 6-0	Amod ... 7-0	Sarbhan 3-0	w; t	sl (pr); cs (mp); tl; M; dg; dh.
Tanakhala 10-0		Indravarna 12-0	w	
Tanakhala 16-0			w	

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688 Manubar BR મનુબર ...	NW;	5-0	3·2;	1652;	341;	1055	Local	
689 Mātar AD માતર ...	E;	6-0	4·1;	1808;	382;	1508	Local	
690 Māthā Kālbī DP માથા કાલબી	SE,	5-0	0·2					
691 Māthā Mogar DP માથા મોગર	E;	6-0		80;	9;	79		
692 Māthāsar DP માથાસર ...	NE;	20-0	4·8;	232;	33;	229		
693 Māthāvalī DP માથાવલી...	NE;	15-0	3·2;	81;	11;	81	Dediapada	14-0
694 Māīteḍ Māṇḍvā AK માટીએડ માંડવા ...	W;	7-0	6·0;	1199;	245;	1068	Saiod	1-0
695 Maunīpāḍā SR મઉનીપાડા	S;	10-0	0·3;	174;	29;	165	Korai	14-0
696 Mauvapāḍā SR મૌવપાડા...	S;	11-0	0·3;	282;	49;	231	Korai	13-0
697 Mayāsī ND મયાસી ...	SW;	5-0	2·4,	99;	18;	99	Amletha	3-4
698 Meḍgām ND મેડગામ ...	SW;	10-0	1·3;	64;	12;	64	Pratapnagar	3-0
699 Medyusāṅg DP મેડ્યુસાંગ	S;	4-0	0·7;	22;	7;	22		
700 Mehagām BR મેલગામ ...	SW;	11-0	2·2;	503;	148;	495	Broach	14-0
701 Melā VL મેલા ...	SW;	8-0	1·0;	616;	118;	571	Valia	8-0
702 Meḷāṁbā DP મેળુઆંબા ...	SE;	8-0	0·5					
703 Mīrāṅpur VL મીરાંપુર ...	SE:	19-0	2.1,	147,	25;	142	Bharadia	4-0
704 Mīṭhīvāv ND મીઠીવાવ ...	NE;	18-4	0·7;	225;	33;	221	Gardeshwar	4-0
705 Mohabī DP મોહબી ...	E;	23-0	1·8;	47;	11;	44		
706 Mohabuḍī DP મોહબુડી...	NE,	25-0	4·0;	153;	28,	153		
707 Moḍalavāv DP મોડળવાવ	E;	8-0	0·04,					
708 Modalījholā DP મોડલીઝોલા	S;	7-0	0·4.					
709 Mojarā DP મોજરા ...	NW.	6-0	1·1;	135;	18;	135	Dediapada	1-0
710 Mojarāgaḍh SR મોજરાગઢ	S;	5-0	0·4					
711 Mojī ND મોજી ...	S.	14-0	2·8;	101,	16;	69	Rajpipla	15-0
712 Mokhaḍī ND મોખડી ...	E;	16-0	8·1;	480;	68;	349	Gardeshwar	11-0
713 Mokhaḍī VL મોખડી ..	E;	10-0	1·6;	687;	124;	676	Bharadia	4-0
714 Morādpor Nejā JB મોરાદપોર નેજા	W;	16-0	1·8;	270;	64;	246	Bhad-Kodra	1-4

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities.	Institution and other information.
Tham 4-0		Tham 1-0	w	2sl (pr) ; Dada Pir fr. Ct. Sud. 15; mq ; 4dg ; ch ; lib ; dp.
Palej 6-0	Amod ... 9-0	Local	w	2sl (pr); cs (c, mp); 5tl; M; 2mq dh; ch ; lh; 2d p.
				Deserted.
			w	
		Dediapada 15-0	str	
Netrang 32-0			w; t; str	
Ankleshwar 6-0		Matied 1-0	w; t	sl (pr); cs (mp); 3tl; dh; ch ; lib; dp.
Kavdi 30-0	Selamba Sun. 8-0	Selamba 6-0	str	
Kavdi 32-0	Selamba Sun. 8-0	Sagbara 8-0	str	
Amletha 3-4			str	
Juna Raju vadia 3-0		Pratapnagar 3-0	w	
		Local	str	
Broach 14-0		Nawetha 3-0	w; t	sl (pr). tl; dg.
Mangrol 7-0		Mangrol 3-0		sl (pr); 3tl.
				Deserted.
Jankhavav 5-0		Jankhavav 4-0	w ; rv	
Tanakhala 1-0			w ; str	
		Dediapada 23-0	str	
		Dediapada 25-0	str	
				Deserted.
				Deserted.
Netrang 1-0		1-4	w; str	
				Deserted.
Rajpipla 15-0		0-4	w	
Nandod 20-0		Indravarna 8-0	rv	sl (pr); Mokhadi falls of the Narmada river ; Haranfall stream of the river Narmada.
Jankhavav 5-0		Dehali 5-0	w ; rv	sl (pr) ; cs (c).
Kora 9-4			w; t	sl (pr); tl ; dg.

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715	Morajaḍi DP મોરજડી ...	E.	15-0	2·4;	75;	11;	75		
716	Moraliṇḍi DP મોરલીંદી...	S:	5-0	0·5					
717	Moraṇ JD મોરણ ...	S;	6-0	1·2:	369.	60:	362	Dharoli	3-0
718	Morāvī SR મોરાવી ...	E:	4-0	0·2;	110;	21;	110	Korai	10-0
719	Morīāṇā VL મોરીઆણા...	NE;	15-6	1·4:	351;	60:	351	Netrang	3-0
720	Morīyāṇā JD મોરીયાણા...	S;	14-4	1·5;	222:	46;	220	Netrang	2-0
721	Mosakhut DP મોસખુટ...	S;	12-0	1·0;	86:	16:	78	Kevdi	
722	Mosam VG મોસમ ...	W;	10-0	3·4;	523:	100;	478	Vagra	5-0
723	Mosīt DP મોસીટ ...	S:	5-0	1·9;	30;	1;	30		
724	Mosakuvā DP મોસકુવા ...	W.	7-0	0·9;	96;	15:	89	Dediapadi	5-0
725	Moṭā Aṃbā ND મોટાઆંબા	E:	9-0	1·1:	185:	32;	185	Vavdi	4-0
726	Moṭā Doraāṃbā SR મોટા ડોરઆંબા	S:	4-0	0·3;	145,	20;	142	Korai	15-0
727	Moṭā Heḍavā ND મોટા હેડવા ...	SE:	5-0	2·0;	53;	7.	53	Rajpipla	3-0
728	Moṭā Jaṃbuḍā VL મોટા જાંબુડા	E:	22-0	1·8;	484.	64:	431	Netrang	7-0
729	Moṭā Jhuṇḍā ND મોટા ઝુંડા	E:	6-0	0·6;	77.	16:	42	Vavdi	2-0
730	Moṭā Kākaḍīāṃbā SR મોટા કાકડીઆંબા	S:	12-0	1·8.	230.	37.	231	Korai	21-0
731	Moṭā Kuḍīāṃbā DP મોટા કુડીઆંબા	S.	7-0	1·0:	19;	3:	19	Dediapada	7-0
732	Motāli AK મોતાલી ...	E.	3-0	0·6:	259:	53:	355	Dadhal	1-4
733	Moṭā Limatvāḍā ND મોટા લીમટવાડા	S.	3-0	1·6;	230.	33:	230	Rajpipla	5-0
734	Moṭā-māch DP મોટા માછ.	SE:	9-0	0·6					
735	Moṭā Mālpor JD મોટા માલપોર	E;	13-4	1·6;	516.	95;	485	Netrang	3-0
736	Moṭā Pīpariā ND મોટા પીપરીઆ	E:	9-0	0·5.	277.	50:	266	Gardeshwar	2-0
737	Moṭā Rāyapurā ND મોટા રાયપુરા	SE;	5-0	3·5;	637:	113:	619	Vavdi	1-0
738	Moṭā Sāñjā JD મોટા સાંજા.	N;	1-2	1·3;	429:	99:	241	Jhagadia	1-0
739	Moṭā Sorvā JD મોટા સોરવા	E;	9-4	3·1:	250;	48:	138	Rajpardi	3-0

Railway St. ; Distance.		Weekly Bazar ; Bazar Day ; Distance.			Motor Stand ; Distance.		Drinking water facilities ;	Institutions and other information.
......							w	
								Deserted.
Padwania	2-0				Dharoli	3-0	w; str	sl (pr).
Kavdi	30-0	Selamba	Sun.	2-0	Sagbara	1-0	w ; str	
Netrang	3-0					1-4	w; str	
Netrang	2-0				Netrang	1-0	w	tl.
Kevdi Road					Dediapada	14-0	w; str	
Vahial	1-0					0-4	w	sl (pr) ; cs (mp); tl; mq; dg.
					Kakadpada	3-0	w	
Netrang	11-0				Yal	7-0	w	
Rajpipla	9-0				Samarkhad	1-0	w	
Kavdi	23-0	Selamba	Sun.	3-0	Chopadvav	2-0	w	
Rajpipla	3-0						w	
Netrang	7-0				Thava	2-4	w ; rv	sl (pr).
Rajpipla	6-0				Local		w	
Kavdi	21-0	Selamba	Sun.	7-0	Selamba	10-0	w; str	
Kevdi Road	10-0				Kakadpada	2-0	w; str	
Dadhal	1-4				Dadhal	1-6	w ; str	cs (c).
Rajpipla	5-0				Rajpipla	2-0	w	
							...	Deserted.
Gambhirpara	0-1				Netrang	3-0	w; str	sl (pr); cs(c); tl.
Rajpipla	12-0				Indravarna	2-0	rv	
Rajpipla	5-0				Vavdi	1-0	w	sl (pr).
Jhagadia	1-0				Jhagadia		w	sl (pr); 3tl.
Rajpardi	3-0				Rajpardi	4-0	w; str	

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740 Moṭā Sukā Āmbā DP મોટા સુકા આંબા	E;	2-0	1·9;	314;	43;	309	Dediapada	3-0
741 Motavāṇ AK મોતવાણ ...	W;	8-0	1·0;	234;	39;	234	Shera	4-0
742 Moṭā Vāsṇā JD મોટા વાસણા	N;	15-4	1·6;	424;	92,	422	Rajpardi	3-0
743 Mothīā HT મોઠીઆ ...	E;	3-6	2·2;	487;	94;	408	Shera	1-0
744 Moṭī Beḍvāṇ DP મોટી બેડવાણ	S;	13-0	2·2;	222;	31;	222	Dediapada	18-0
745 Moṭī Bhamarī ND મોટી ભમરી	S;	13-0	1·1;	401,	54;	358	Rajpipla	16-0
746 Moṭī Cīkhalī ND મોટી ચીખલી	S;	8-0	0·9;	216;	39;	56	Rajpipla	12-0
747 Moṭī Ḍaberī DP મોટી ડબેરી	N;	17-0	1·8;	177;	21;	166	Rajpipla	10-0
748 Moṭī Devarupaṇ SR મોટી દેવરૂપણ	E;	7-0	2·6;	723;	103;	693	Korai	10-0
749 Moṭī Kālabī DP મોટી કાલબી	SE;	6-0	0·2;	86;	12;	86		
750 Moṭī Koravaī DP મોટી કોરવઇ	S;	8-0	0·8;	77;	11;	77		
751 Moṭī Mogarī SR મોટી મોગરી	S;	12-0	1·0;	17;	2;	17	Korai	23-0
752 Moṭī Parolī SR મોટી પરોળી	E;	8-0	0·2;	65;	11,	65	Korai	8-0
753 Moṭī Rāval ND મોટી રાવળ	E,	8-6	0 9;	216;	39;	181	Gardeshwar	4-0
754 Moṭī Sīṅgloṭī DP મોટી સીંગલોટી	NE;	7-0	2·2,	137;	21;	126	Dediapada	8-0
755 Motīyā VL મોતીયા ...	E;	21-0	3·5;	181;	28;	178	Netrang	8-0
756 Mouzā VL મોઝા ...	E;	22-0	5·1;	1956;	288;	1858	Netrang	6-0
757 Movī JD મોવી ...	E;	23-0	1·7;	197;	33;	197	Rajpipla	8-0
758 Movī ND મોવી ...	S;	7-0	1·3;	66;	14;	66	Rajpipla	8-0
759 Movī SR મોવી ..	S;	12-0	2·5;					
760 Mugaj JD મુગજ ...	E.	18-0	2·2;	125;	21;	125	Netrang	6-0
761 Mulad JD મુલદ ...	W.	6-0	1·3;	465;	88;	436	Nandva	1-0
762 Muler VG મુલેર ...	N;	12-0	5·5;	482;	83;	446	Pakhajan	7-0
763 Mulkāpāḍā DP મુલ્કાપાડા	S;	10-0	0·8;	186;	28;	111	Netrang	17-0

Railway St.; Distance.		Weekly Bazar ; Bazar Day ; Distance.			Motor Stand ; Distance.		Drinking water facilities.	Institutions and other information.
Netrang	16-0				Nighat	1-0	w.	dp.
Panoli	6-0				Matied	4-0	w; t	tl; 2dg; lib.
Rajpardi	3-0						w; rv	sl(pr); pyt: 2tl.
Ankleshwar	10-0	Hansot	...	4-0		0-4	w	sl(pr); tl, mq; 3dg; dh; lib.
Kevdi Road	7-0				Ambavadi	4-0	str	
Rajpipla	16-0					1-0	rv	
Rajpipla	12-0					4-0	str	
Rajpipla	10-0					1-0	rv	
Khanwara	17-0	Jodwan	Mon.	2-0	Selamba	6-0	w; str	sl(pr).
					Local		str	
					Kakadapada	4-0	str	
Kavdi	38-0	Selamba	Sun.	12-0	Kakadapda	6-0	str	
Kavdi	34-0	Selamba	Sun.	4-0	Selamba	7-0	w	
Rajpipla	9-0					0-4	str	sl(pr).
Netrang	25-0				Dediapada	8-0	w	
Netrang	8-0				Netrang	6-4	w	
Netrang	6-0						w; rv	sl(pr); cs(mp).
Rajpipla	8-0				Yal	0-4	str	
Rajpipla	8-0					0-4	str	
					Chopadav	7-0	str	Deserted.
Netrang	6-0						str	
Boridra	1-4				Kharach	1-4	w	sl(pr); cs(mp); 3tl.
Pakhajan	7-0				Local		t	sl(pr); 2tl.
Netrang	17-0					10-0	w; rv	

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764 Nabīpur BR નબીપુર ...	E;	8–0	3·5;	2261;	300;	1368	Local	
765 Nāḍā JB નાડા ...	W;	19–0	14·1;	1064;	209;	925	Tankari	5–(
766 Naḍiyād JB નડીયાદ ...	W;	4–0	3·2;	297;	61;	280	Kalak	1–
767 Naghātpor Kothi ND નઘાતપોર કોઠી ...	NE;	18–0	3·5;	726;	133;	693	Tanakhala	5–(
768 Nahār JB નહાર ...	S;	8–0	2·1;	747;	168;	618	Sarod	3–(
769 Nāhier AD નાહિએર ...	S;	2–0	2·0;	347;	75;	257	Amod	2–0
770 Nāl SR નાલ ...	S;	11–0	3·7;	128;	19;	113	Korai	24–0
771 Naladharī VL નલધરી ...	W,	1–6	2·5;	195;	35;	179	Valia	1–6
772 Nālākuṇḍ SR નાલાકુંડ ...	S;	10–0	0·4;	28;	7;	28	Korai	19–0
773 Nāmagīr DP નામગીર ...	NE;	16–0	3·[illegible];	22;	3;	19	......	
774 Nāmalgaḍh ND નામલગઢ	S;	12–0	5·7;	50;	11;	34	Amletha	10–0
775 Nānā Ḍoraāṃbā SR નાના ડોરઆંબા	S;	6–0	0·3;	85;	15;	81	Korai	16–0
776 Nānā Heḍavā ND નાના હેડવા	S;	4–0	0·3;	113;	16;	113	Rajpipla	4–0
777 Nānā Jaṃbuḍā VL નાના જંબુડા	E;	21–4	1·6;	292;	53;	286	Netrang	6–0
778 Nānā Kākaḍīāṃbā SR નાના કાકડીઆંબા	S,	7–0	2·8.	237;	35;	233	Korai	13–0
779 Nānā Kuṇḍīāṃbā DP નાના કુંડીઆંબા	S;	8–0	1·0;	395;	68;	354	......	
780 Nānā Līmaṭvāḍā ND નાના લીમટવાડા	S;	3–0	0·4,	203;	37;	158	Rajpipla	2–(
781 Nānā Māch DP નાના માછ	SE;	9–0	0·8;				......	
782 Nānā Pīpariā ND નાના પીપરીઆ	E;	9–0	0·6;	150;	27;	150	Gardeshwar	2–0
783 Nānā Rāyaparā ND નાના રાયપરા	S;	4–0	1·0;	114;	20;	114	Rajpipla	3–0
784 Nānā Sāñjā JD નાના સાંજા	W;	4–0	1·4;	692;	149;	481	Jhagadia	3–0
785 Nānā Soravā JD નાના સોરવા	E;	9–0	0·3;	44;	8;	44	Rajpardi	3–0
786 Nānā Sukāāṃbā DP નાના સુકાઆંબા	W;	3–0	1·6;	197;	32;	171	......	
787 Nānā Vāsaṇā JD નાના વાસણા	N;	15–0	0·7;	413;	75;	387	Panetha	2–0

Railway St. ; Distance.		Weekly Bazar ; Bazar Day ; Distance.			Motor Stand ; Distance.		Drinking water facilities.	Institutions and other information.
Local							w; pl	2sl(pr); pyt; cs(2c); mq; 3dg; dh; ch; lib; 4dp; Ginning factory.
Jambusar	16-0				Devla	3-0	w	sl (pr); cs(c); fr. Devjagan; tl; M; 2dg.
Jambusar	5-0				Kalak	2-0	w	cs(c); tl; mq; dg.
Tanakhala	5-0					13-0	w ; str	sl (pr).
Kangam	2-0				Kangam	1-4	w	sl (pr) ; cs (c) ; Rukheshwar Mahadev fr. Ct. Sud 15 ; tl ; ch ; Rukeshwar Mahadev temple.
Local		Amod	...	2-0	Local		w	sl (pr) ; cs (c) ; Hathila Hanuman fr. An. Vad 14 ; 6tl ; dg ; ch.
Kavdi	32-0	Selamba	Sun.	8-0	Saghara	8-0	w	
Jhagadia	13-6				Valia	1-4	w; t ; str	tl.
Kavdi	37-0	Selamba	Sun.	16-0	Sagabra	7-0	w	
					Dediapada	12-0	str	
Amletha	10-0					3-0	w	
Kavdi	25-0	Selamba	Sun.	4-0	Chopadvav	4-0	str	
ajpipla	4-0						w	
etrang	6-0				Thava	2-0	w ; rv	
avdi	15-0	Selamba	Sun.	5-0	Chopadvav	3-0	w. str	sl (pr).
					Kakadpada	2-0	w ; rv	
ajpip la	2-0				Rajpipla	1-0	w ; rv	
								Deserted.
ajpipla	12-0				Indravarna	2-0	rv	
ajpipla	3-0						w	
umandev	0-4				Gumandev	0-4	w ; rv	sl (pr) ; 3tl; dg.
ajpardi	3-0				Rajpardi	4-0	str	pyt.
					Rakhaskundi	1-0	sp	
eshwar Road.	2-0						w; rv; t	sl (pr) ; tl ; dh.

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788 Nānā Jhuṇḍā ND નાના ઝુંડા	E;	6–0	0·1;	67;	12;	40	Vavdi	2–
789 Nānd BR નાંદ ...	NE;	13–4	2·0;	522;	104;	502	Nabipur	7–1
790 Nāndarkhā VG નાંદરખા....	W;	10–0	2·0;	310;	67;	286	Pakhajan	2–(
791 Nāndevāl BR નાંદેવાલ ...	N;	1–4	1·3;	344;	66;	355	Broach	1–(
792 Nāndīḍā VG નાંદીડા ...	W;	14–0	4·7;	706;	155;	653	Pakhajan	2–4
793 Nāṅgal AK નાંગલ ...	W;	4–2	5·8;	707;	156;	668	Sajod	1–0
794 Nāni Beḍvāṇ DP નાની બેડવાણ	S;	13–0	0·8;	253;	39;	253	Dediapada	18–0
795 Nānī Bhamarī DP નાની ભમરી	NW;	8–0	2·0;	113;	19;	109	Rajpipla	12–0
796 Nān: Cīkhalī ND નાની ચીખલી	S;	8–0	1·8;	121;	20;	121	Rajpipla	11–0
797 Nānī Ḍaberī ND નાની ડબેરી	S;	10–0	1·6;	115;	20;	97	Rajpipla	9–0
798 Nānī Devarupaṇ SR નાની દેવરૂપણ	E;	6–0	0·7;	149;	23;	149	Korai	12–0
799 Nānī Kuravaī DP નાની કુરવઈ	S;	6–0	0·2				......	
800 Nānī Mogarī SR નાની મોગરી	S;	11–0	0·3;	6;	1;	6	Korai	12–0
801 Nānī Marakī DP નાની મરકી	E;	24–0	0·4	-			......	
802 Nānī Parolī SR નાની પરોળી	E;	9–0	0·3;	142;	20;	140	Korai	10–0
803 Nāni Rāvaḷ ND નાની રાવળ	E;	9–0	0·5;	150;	24;	121	Gardeshwar	3–0
804 Nānī Siṅgloṭī DP નાની સીંગલોટી	NE;	6–0	1·4;	164;	28;	156	Dediapada	6 0
805 Naravāḍī SR નરવાડી ...	S;	3–0	2·1;	351.	55;	336	Korai	10 0
806 Narakhaḍī ND નરખડી...	N;	9–0	3·3;	468;	87;	466	Rajpipla	7–0
807 Narṇāvi VG નરણાવી ...	W;	14–0	2·5;	341;	72;	264	Pakhajan	5–4
808 Nāśari ND નાશરી ...	NE;	21–0	1·3;	167;	29;	155	Gardeshwar	13–0
809 Naugāmā JD નૌગામા ...	W;	7–4	1·6;	309;	60;	300	Mandva	1–0
810 Navāgām ND નવાગામ ...	S;	3–0	1·0;	114;	18;	114	Rajpipla	2–0
811 Navāgām SR નવાગામ ...	E;	4–0	0·2;	234;	34;	226	Korai	10–0

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities.	Institutions and other information.
Rajpipla 6-0		Local	w	
Varedia 5-0		Zanor 2-0	w	sl (pr); cs (c); 2tl ; dh.
Pakhajan 2-0		Vagra 12-0	w	2 tl ; dg.
Broach 1-0		Broach 1-0	w	sl (pr); mq ; dg.
Pakhajan 2-4		Khojbal 2-0	w ; t	sl (pr). cs (mp) : tl ; M ; dg ; dh ; ch.
Ankleshwar 5-0		Sajod 1-4	w	sl (pr). pyt ; cs (c, mis); tl ; dg
Kevdi Road 6-0		Ambavadi 3-0	w ; str	
Rajpipla 12-0		2-0	rv	
Rajpipla 11-0		4-0	w ; str	
Rajpipla 9-0		Local	rv	
Khanwara 19-0	Jodwan Mon. 4-0	Sagbara	w ; str	
				Deserted.
Khanwara 19-0	Jodwan Mon. 4-0	Kakadapada 6-0	str	
				Deserted.
Kavdi 33-0	Selamba Sun. 3-0	Selamba 6-0	w	sl (pr).
Rajpipla 10-0		Indravarna 2-0	rv	2tl.
Rajpipla 27-0		.....	w; sp; str	
Kavdi 30-0	Selamba Sun. 1-0	Sagbara 3-0	w	
Rajpipla 7-0		Poicha 1-4	rv	sl (pr); tl.
Sambheti 3-0		......	w	sl (pr); cs(c); 2tl; dg; ch.
Tanakhala 13-0		Indravarna 12-0	rv	
Boridra 3-0		Broach 3-0	w; str	2tl.
Rajpipla 2-0		......	str	
Kavdi 29-0	Selamba Sun. 1-0	Selamba 1-0	w; str	sl (pr).

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812 Navāgām VL નવાગામ ...	SE;	9–0	0·8,				......	
813 Navāgām DP નવાગામ ...	W;	1–0	1·4;	417;	59;	401	......	
814 Navāgām (Pānuḍavāḷū) DP નવાગામ (પાનુડાવાળું)	SW;	7–0	0·5;	233;	35;	227	......	
815 Navāgāmā ND નવાગામા	E;	15–4	1·2;	226;	40;	205	Gardeshwar	4–0
816 Navāgām Moṭā JD નવાગામ મોટા	S;	6–4	0·3;	239;	39;	167	Jhagadia	4–0
817 Nāvā Mosdā DP નવા મોસ્દા	SE;	7–0	1·7;	110;	35;	4	......	
818 Navāpāḍā SR નવાપાડા	E;	5–0	0·3;	66;	17;	66	Korai	10–0
819 Navāparā JD નવાપરા ...	S;	10–4	0·5;	58;	14;	43	Dharoli	5–0
820 Navāparā VL નવાપરા ...	E;	7–2	0·4;	149;	24;	139	Dehali	4–0
821 Navāparā ND નવાપરા ...	NE.	17–4	1·6;	762;	158;	705	Tilakwada	7–0
822 Navāpurā ND નવાપુરા...	W;	8–0	0·3;	245;	36;	243	Amletha	3–0
823 Nāvarā ND નાવરા ...	NW;	14–0	0·2;	805;	156;	584	Panetha	5–0
824 Navā Vāghparā ND નવા વાઘપરા	E;	7–0	1·8;	341;	59;	337	Rajpipla	7–0
825 Navethā alias Hasanpor BR નવેઠા ઉર્ફે હસનપોર...	E;	9–0	1·7;	392;	73;	381	Broach	
826 Netrang VL નેત્રંગ ...	NE;	17–0	2·5;	1750;	373;	982	Local	
827 Nghaṭ DP નિઘટ ..	W;	3–0	0·9;	233;	37;	226	......	
828 Nikolī ND નીકોલી ..	NW;	7–0	3·1;	863;	191;	753	Sisodra	2–0
829 Nīkoli VL નીકોલી ...	SE;	9–2	0·9;	286;	50;	266	Bharadia	1–0
830 Nīkorā BR નીકોરા ...	NE;	13–8	4.8;	2823;	556;	1669	Local	
831 Nīṇam AD નીણમ ...	SE;	5–0	1·7;	446;	95;	213	Amod	4–0
832 Nivāladā DP નિવાલદા ...	W;	1–0	0·2;	207;	25;	195	......	
833 Nobār JB નોબાર ...	S;	5–0	3·7;	1214;	264;	1029	Jambusar	6–0
834 Nondhaṇā JB નોંધણા ...	S;	6–0	2·2;	1071;	232;	935	Local	
835 Obhā HT ઓભા ...	SE;	9–6	3·8;	836;	188;	598	Ilav	3–0
836 Occhāṇ VG ઓચ્છાણ ...	NW;	5–4	5·5;	859;	187;	744	Pahaj	3–0
837 Ochaṇ AD ઓછણ ...	E;	4–0	3·5;	902;	198;	828	Ikhar	2–0

Railway St.; Distance.		Weekly Bazar : Bazar Day ; Distance.			Motor Stand ; Distance.		Drinking water facilities.	Institutions and other information.
......					Dehali	5-0	rv	Deserted.
......					Dediapada	1-4	w	tl.
......					Dediapada	9-0	rv	
Rajpipla	13-0				......		rv	
Damlai	3-0				Talodra	1-0	w	
......					......			
Kavdi	30-0	Selamba	Sun.	2-0	Selamba	2-0	str	
Goratia	1-0				......		str	
Vankal	10-0				Dehali	4-0	w; str	sl(pr).
Tanakhala	5-0				......		w; t; str	
Amletha	3-0				Local		w; str	sl(pr); 3tl; lib.
Juna Rajuvadia	6-0				Pratapnagar	4-4	rv	sl(pr); 3tl; ch.
Rajpipla	7-0				Hirapara	0-4	w	sl(pr); tl.
Local					Local		w	sl(pr); cs(c); 3tl; mq; dg.
Local					Local		w	sl(pr); cs(mp, mis); ch; dp.
......					Local		w; str	
Amletha	4-0				Local		w; str	sl(pr); 2tl; ch; lib.
Mangrol	4-0				Dehali	3-0	w; rv	sl(pr).
Nabipur	5-0				Local		w; t; rv	sl(pr); pyt; cs (c, mis); 5tl; mq; 2dg; 4dh; ch; lib; 2dp.
Nahier	3-0	Amod	..	4-0	Nahier	2-0	w	sl(pr); 2tl; dh ; lib; dp.
					Dediapada	0-4	w; str	
Jambusar	6-0				Local		w	sl(pr); cs(mp); Dadapir fr. Ct. Vad 4-5; 2tl; mq; dg; dh; ch; lib; dp.
Jambusar	7-0				Nobar	1-0	w; t	sl(pr); tl; lib.
Kosamba	6-0	Ilav	..	3-0	Sunevkalla	2-0	w; t; rv	sl(pr); cs(c); 2tl; dg; ch.
Vagra	6-0				Local		w; t	sl(pr); 2tl; mq; 2dg; dh; dp.
Palej	6-0	Amod	..	12-0	Mangrol	1-0	w	sl(pr); tl; dh; ch; lib; dp.

Serial No.	Village/Town name ; Taluka abbreviation ; Village/Town name in Gujarati.	Direction from the Taluka/Peta H. Q.	Travelling distance.	Area (sq. miles)	Population	Households	Agricultural population.	Post Office	Distance.
838	Olgām DP ઓલગામ ...	SE:	10–0	0·7;	44;	8;	44	Dediapada	10–0
839	Or JD ઓર ...	N:	13–0	1·0;	265;	52;	162	Bhalod	3–0
840	Orā VG ઓરા ...	NE:	2–4	3·6;	697;	137;	655	Vagra	2–4
841	Orapā ND ઓરપા ...	NE;	18–6	1·1;	326;	52;	326	Tanakhala	2–0
842	Orī ND ઓરી ...	NW:	9–0	3·1;	1269;	269;	1262	Sisodra	2–0
843	Osārā BR ઓસારા ...	NE:	8–0	0·7:	176;	33;	176	Nabipur	3–0
844	Pāḍā JD પાડા ...	E;	14–0	0·8;	86;	17;	86	Pratapnagar	1–0
845	Pāḍā ND પાડા ...	S;	6–0	1·6;	128;	29;	128	Rajpipla	7–0
846	Pāḍā SR પાડા ...	W;	10–0	5·9;	41;	7;	41	Korai	30–0
847	Paḍadalpor VG પડદલપોર	NW:	9–0	1·5;	50;	14;	45	Pahaj	4–0
848	Paḍāl JD પડાલ ...	S;	5–0	3·7;	833;	140;	811	Jhagadia	3–0
849	Paḍāldev DP પડાલદેવ ...	W;	7–0	0·1;	12,	2;	12	Dediapada	6–0
850	Pādarīā VG પાદરીઆ ...	W;	17–4	2·1;	335;	64;	329	Pakhajan	6–0
851	Pādarīā BR પાદરીઆ ...	NW;	14–0	2 9;	780;	158;	687	Samni	2–4
852	Paḍavānīyā JD પડવાનીયા	E:	5–4	4 3;	892;	144;	882	Jhagadia	4–0
853	Pāḍī SR પાડી ...	S;	11–0	5·9;	74,	14;	69	Korai	16–0
854	Paguthaṇ BR પગુથણ ...	E;	5–8	2·2;	819;	153;	772	Local	
855	Pahāj VG પહાજ ...	NW;	4–0	5 2;	1290;	232;	1140	Local	
856	Pakhājaṇ VG પખાજણ...	W;	9–0	6·4;	1033;	231;	920	Local	
857	Paladī VG પાલડી ...	W;	10–0	3·3;	376,	88;	365	Pakhajan	5–0
858	Pālej BR પાલેજ ...	NE;	16–0	1·6;	3356;	643;	538	Local	
859	Palsī ND પલસી ...	S;	13–0	1·5;	169;	29;	169	Rajpipla	11–0
860	Pānakhalā SR પાનખલા	S;	2–0	0·5;	108;	17;	108	Korai	10–0
861	Paṇasolī VL પણસોલી...	S;	4–0	1·4;	324;	61;	320	Valia	4–0
862	Pāñcapipalā JB પાંચપીપલા	W;	10–0	1·0;	93;	19;	91	Tankari	4–4
863	Pāñcapīparī SR પાંચ પીપરી	S;	3–0	1·4;	543;	73;	505	Korai	11–0
864	Pāñcalā ND પંચલા ...	E;	22–0	0·9;	190;	31;	184	Tanakhala	7–0
865	Pāñc Khāḍī ND પાંચખાડી	E:	11–0	2·7					
866	Pāñcmulī ND પાંચમુલી	E;	17–0	4·1;	388;	60;	388	Gardeshwar	7–0

Railway St.; Distance.		Weekly Bazar; Bazar Day; Distance.			Motor Stand; Distance.		Drinking water facilities.	Institutions and other information.
Netrang	28-0				Ambavadi	3-0	w	
Kora	3-0				Bhalod	2-4	rv	sl(pr); dh.
Vagra	2-4				Samni	2-4	w	sl(pr); cs(mp); 7tl; 2M; mq; dg; dh; ch.
Tanakhala	2-0				Indravarna	10-0	str	
Sinor	3-0				Local		w; rv	sl(pr); cs(c); 7tl; dg; dh; ch; lib.
Nabipur	3-0				Local		w	dg.
Pratapnagar	1-0				......		w	
Rajpipla	7-0				Local		rv	tl; a very old temple of Mahadev and a large idol of Ganapati near the temple.
Kavdi	38-0	Selamba	Sun.	15-0	Kakadpada	5-0	w; str	
Vagra	6-0				Chanchvel	1-0	t	
Damlai	2-0				Talodra	2-4	w; str	2sl(pr).
Netrang	10-0				Dediapada	8-0	str	
Sambheti	1-4				......		w; t	tl; dg.
Samni	2-4				Tankaria	2-4	w	sl(pr); cs(mp); 4tl; mq; lib; gate of the ancient fort.
Local					Dharoli	5-0	w; t	sl(pr).
Kavdi	20-0	Selamba	Sun.	8-0	Sagbara	12-0	str	
Chavaj	1-4				Local		w	sl(pr); 2tl; mq; 2dg; ch; lib.
Vagra	3-4				Local		w; t	sl(pr); cs(c); 2tl; M; mq; dg; dh.
Local					Vagra	9-0	w	sl(pr); cs(c); 2tl; M; mq; 3dg; dh; ch; lib; dp.
Pakhajan	5-0				Keshwan	1-0	w; t	cs(mp); tl; M.
Local					Local		w	sl (2pr, h); pyt; cs(c); Mota Mia Pir fr. Ct. Sud 15; 2tl; mq; 3dg; 2dh; gym; ch; lib; 11dp; Ranchhod temple and Jain temple.
Rajpipla	11-0					2-0	rv	
Kavdi	22-0	Selamba	Sun.	10-0	Sagbara	1-0	w	
Mangrol	7-0				Valia	2-0	w; str	
Karmad	4-0				......		w	
Kavdi	28-0	Selamba	Sun.	2-0	Selamba	2-0	w; str	sl(pr).
Tanakhala	7-0				......		str	
					......			Deserted.
Tanakhala	8-0				......		str	

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867 Pāñckaḍā JB પાંચકડા ...	W; 9-0	2·1; 318; 61; 306	Jantran 4-0
868 Pāñcsīm VL પાંચસીમ ...	E; 12-0	1·9; 369; 72; 359	Netrang 4-0
869 Pāñcūmar DP પાંચઊમર	NE; 7-0	0·7; 102; 10; 96	Dediapada 5-0
870 Paṇḍavāī HT પંડવાઈ ...	SE. 9-6	1·5; 369; 73; 363	Kosamba 3-0
871 Pāṇethā JD પાણેથા ...	N; 18-0	0·4; 2365; 462; 1984	Local
872 Pangām DP પનગામ ...	W; 6-0	2·5; 131; 19; 116	Dediapada 8-0
873 Paṇīādara VG પણીઆદરા	W; 14-0	15·9; 532; 119; 422	Pakhajan 7-0
874 Pāṇī Sādaḍīā ND પાણી સાદડીઆ	NE; 18-4	0·4; 186; 24; 181	Tanakhala 4-0
875 Pāñjarolī HT પાંજરોલી ...	SE; 10-0	2·3; 752; 155; 688	Kosamba 5-2
876 Pānkhalā DP પ નખલા ...	NE; 17-0	2·6	......
877 Pānkhalā DP પાનખલા...	E; 23-0	5·2; 100; 18; 93	Dediapada 20-0
878 Pānoḍ AK પાનોડ ...			......
879 Pānolī AK પાનોલી ...	S; 6-6	5·1. 1678; 367; 1285	Local
880 Pānsar DP પાનસર ...	E; 4-0	3·9; 176; 29; 163	......
881 Pān Talāvaḍī ND પાન તલાવડી	NE. 16-0	0·4; 492; 81; 457	Tilakwada 6-0
882 Pānuḍa DP પાનુડા ...	SW. 8-0	1·2; 311. 39; 301	....
883 Pānvāḍī JD પાનવાડી .	S; 8-6	1·0. 228; 43; 219	Limet 3-0
884 Pāraḍī HT પારડી ..	S. 1-4	2·4; 390; 63; 185	Hansot 1-0
885 Pārakhet BR પારખેત ..	N; 11-0	4·2; 1192. 243; 1024	Local
886 Paratāpaparā ND પરતાપપરા	W; 6-0	1·2; 398; 73; 397	Amletha 2-4
887 Paravat HT પરવટ ..	SE; 8-0	2·9; 573; 116; 553	Ilav 5-0
888 Paravaṭā JD પરવટા ...	N; 16-0	0·9; 41; 13; 41	Panetha 1-0
889 Pāraḍī Idris AK પારડી ઈદ્રીસ	W; 8-0	2·8; 490; 103; 443	Panoli 6-0
890 Pārḍī Mokha AK પારડી મોખા	E; 7-2	0·8; 292; 56; 265	Kitali 2-4
891 Parīej BR પરીએજ ...	N; 10-0	3·1; 1685; 326; 1337	Local
892 Pāṭ SR પાટ ...	S; 3-0	1·0; 366; 58; 360	Korai 12-0
893 Pāṭaḍī DP પાટડી ...	S; 14-0	2·6; 192; 30; 192	Dediapada 14-0
894 Pātal VL પાતલ ...	SE. 11-0	1·3; 253; 43; 252	Bharadia 1-0

Railway St.; Distance.	Weekly Bazar; Bazar Day; Distance.	Motor Stand; Distance.	Drinking water facilities	Institutions and other information.
Kora 1-4		Local ...	w	cs(c); tl; M; ch.
Netrang 4-0		Navanagar ...	w; str	
Netrang 20-0		Dediapada 6-0	t; str	
Kosamba 3-0	Kosamba ... 3-0	Sunevkalla 6-0	w; t	sl(pr); cs(c); tl; mq; dg.
Malsar 4-0		......	w	2sl (pr); cs(2c); 8tl; dg; dh; ch; ln.
Rajpipla 15-0		0-4	w; str	
Sambheti 4-0		....	w; t	sl(pr); cs(c); tl; M; ch.
Tanakhala 4-0		......	w	
Kosamba 5-2	Kosamba ... 5-2	Sunevkalla 6-0	w; t; rv	sl (pr); tl
		Dediapada 15-0	str	Deserted.
Rajpipla 47-0		Dediapada 17-0	str	
......		....	...	Included in Ankleshwar municipal area.
Local		Ankleshwar 7-0	pl	sl (pr); cs(c, mp); 2mq; ch; lib; dp
		Dediapada 3-0	w	
Tanakhala 5-4			w	mq; dg.
		Thavagam 5-0	rv; sp	
Jhagadia 9		Local	w; t	
Ankleshwar 14-0	Hansot ... 1-0	Hansot 1-0	w	sl(pr).
Varedia 3-0		Nabipur 4-0	w	sl(pr); cs (mp, fmg); 2tl; mq; dg; lib; lift irrigation society.
Amletha 2-4		Kubhasgam 1-4	w; str	tl.
Kosamba 7-0	Ilav ... 5-0	Sunevkalla 2-4	w; t	sl(pr); 2tl; mq; ch; dp.
Malsar 5-0		......	rv; t	dg.
Panoli 6-0		Ankleshwar 7-0	w	sl(pr); cs(mp); tl; ch.
Dadhal 3-0		Dadhal 3-0	w; rv	cs(c); Pir Sultan fr. An. Vad. 9; mq; dg; dh; *Akik* stone quarries.
Dayadra 3-4		Dayadra 4-0	w	2sl(pr); cs(mp); Bawa Rustam fr.; mq; 4dg; dp.
Kavdi 28-0	Selamba Sun. 3-0	Sagbara 2-0	w; str	sl(pr).
Kevdi Road 9-0		Ambavadi 5-0	w; str	
Mangrol 4-0		Dehali 5-0	w; rv	

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895 Pāṭaṇā ND પાટણા ...	NW;	6-0	2 4;	1090;	185;	1022	Pratapnagar	8-0
896 Pāṭanāmauv SR પાટનામોવ	S;	8-0	1·2;	237;	41;	232	Korai	16-0
897 Paṭār JD પટાર ...	N;	12-4	0 6;	165;	28;	158	Bhalod	3-0
898 Paṭhāṇā SR પઠાણા ...	S;	10-0	0·6;	164;	26;	149	Korai	11-0
899 Paṭhār VL પઠાર ...	NE;	11-0	5·4;	1174;	206;	1126	Netrang	4-0
900 Pāṭī SR પાટી ...	S;	6-0	0 1;	256;	37;	256	Korai	14-0
901 Pāṭī ND પાટી ...	NE;	8-0	1·0;	225;	45;	109	Lachhras	4-0
902 Pāṭvalī DP પાટવલી ..	NE.	14-0	0 8;	125;	21;	125	Dediapada	10-0
903 Paṭiā VL પેટીઆ ...	E;	12-0	2·6;	370;	69;	367	Jankhavav	5-0
904 Phalkoī VL ફલકોઈ ...	W;	3-0	0·7;	110;	20;	104	Valia	3-0
905 Phatepur SR ફતેપુર ...	S;	12-0	0·3;	105;	16;	105	Korai	16-0
906 Phāṭuk DP ફાટુક ...	NE;	7-0	1 4				.. ...	
907 Phīcavāḍā JD ફીચવાડા ...	E,	24-0	1 5;	178;	29;	178	Netrang	9-0
908 Phīcavāḍā JD ફીચવાડા ...	NE;	10-0	3 1;	642;	120;	546	Umalla	5-0
909 Phokaḍavāḍī DP ફોકડાવાડી	SW;	1-0	0 9;	4;	1,	4	......	
910 Phokaḍī JD ફોકડી ...	S;	17-0	0 8;	79.	11;	79	Netrang	2-0
911 Phulasar DP ફુલસર ...	N;	5-0	2 7;	125;	15;	115	Rajpipla	6-0
912 Phulavāḍī ND ફુલવાડી...	E;	8-0	1·2;	366;	52;	342	Vavdi	5-0
913 Phulavāḍī JD ફુલવાડી...	SW,	3-0	2 9;	899;	174;	867	Jhagadia	3-0
914 Phulvāḍī VL ફુલવાડી ...	E;	21-0	1 1,	164;	31;	164	Netrang	7-0
915 Pīchīpurā ND પીછીપુરા	NE;	22-0	2·3;	337;	58;	318	Tanakhala	6-0
916 Pīludarā JB પીલુદરા ...	E;	10-0	2 7;	1840;	412;	1623	Gajera	3-0
917 Pīludrā AK પીલુદ્રા ...	S;	6-2	2·5;	296;	65;	291	Panoli	4-0
918 Pīṅgalāpāḍā DP પીંગલાપાડા	N;	6-0	1 6				......	
919 Pīṅgoṭ VL પીંગોટ ...	E;	24-0	4 4;	417,	67;	410	Netrang	6-0
920 Pīpadarā JD પીપદરા ...	N,	7-2	1 1;	434;	99;	372	Rajpardi	2-0
921 Pīpaḷā DP પીપળા ...	E;	3-0	1 0;	149;	20;	141	Dediapada	3-0
922 Pīpalapān JD પીપલપાન...	S;	12-0	1 4;	260;	51;	230	Rajpardi	7-0
923 Pīpalāpāṇī SR પીપલાપાણી	S;	12-0	1 6;	188;	33;	179	Korai	16-0

Railway St.; Distance.	Weekly Bazar; Bazar Day; Distance.	Motor Stand; Distance.	Drinking water facilities.	Institutions and other information.
Nandod 5-0		Ori 2-0	rv	sl(pr); 2tl; dh.
Kavdi 32-0	Selamba Sun. 8-0	Sagbara 6-0	w	sl(pr); dp.
Kora 3-0		Bhalod 3-0	rv	
Khanwara 16-0	Jodwan Mon. 1-4	Selamba 12-0	w; str	
Netrang 4-0		Chanderia 1-4	str	sl(pr); cs(c).
Kavdi 24-0	Selamba Sun. 4-0	Chopadvav 9-0	w; str	
Chandod 3-0		Jesalpore 3-0	rv	
Netrang 26-0		Dediapada 12-0	t; str	
Jankhavav 5-0		Dehali 7-0	w; str	
Mangrol 5-0		Valia 3-0	w; t	
Khanwara 18-0	Jodwan Mon. 4-0	Selamba 10-0	w	
				Deserted.
Netrang 9-0		Yal 2-0	str	
Umalla 5-0			w	sl(pr); 2tl; dg; dh ch.;
		......		
Netrang 2-0		Netrang 0-6	w	
Rajpipla 6-0			w; str	
Rajpipla 8-0		Samarkhad 1-0	w; rv	sl(pr).
Jhagadia 3-0		0-4	w; str	sl(pr); 4tl.
Netrang 7-0		Local	str	sl(pr).
Tanakhala 6-0		Indravarna 11-0	rv	
Masar Road 5-0		Local	w	2sl(pr); 2tl; M; dg; ch; lib.
Panoli 4-0		Sajod 4-0	w; t	tl; lib.
				Deserted.
Netrang 6-0			w	
Rajpardi 2-0		Vanakpor 1-0	w	sl(pr); tl; dh; lib.
Netrang 23-0		Dediapada 4-0	str	
Rajpardi 7-0			str	
Khanwara 18-0	Jodwan Mon. 5-0	Selamba 13-0	w	

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924	Pīpaliā BR પીપલાંઆ...	NW;	10-0	3·2;	643;	144;	455	......	
925	Pīpalīyā VG પીપલીયા ...	W;	9-0	1·8;	1049;	196;	644	Pakhajan	1-0
926	Pīparīpāḍā DP પીપરીપાડા	S;	8-0	0·1;	153;	21;	107	Dediapada	6-0
927	Pīparīpāḍā SR પીપરીપાડા	S.	11-0	0·4;	82;	11;	82	Korai	13-0
928	Pīparoḍ AK પીપરોડ ...	E;	7-0	0·9;	192;	37;	188	Jitali	2-4
929	Pīparavaṭī DP પીપરવટી...	S;	12-0	0·9.	42;	6;	42	Dediapada	16-0
930	Pīplod DP પીપલોદ ...	NE;	16-0	3·8;	103;	18;	98	Dediapada	15-0
931	Pīrāmaṇ AK પીરામણ ...	E;	1-0	4·0;	958;	187;	713	Ankleshwar	0-6
932	Pīramaṇḍālā SR પીરમંડાલા	E;	7-0	0 6;	187;	31;	187	Korai	8-4
933	Pīsād VG પીસાદ ...	SW;	1-4	2·3;	438;	95;	269	Vagra	2-0
934	Pīṭhor VL પીઠોર ...	E;	4-4	1 4;	778;	126;	770	Dehali	1-0
935	Poīcā ND પોઈચા ...	N;	8-0	3·4;	626;	122;	603	Chandod	1-0
936	Pomalāpāḍā DP પોમલાપાડા	W;	6-0	1 2;	153;	21;	143	Dediapada	6-0
937	Porā JD પોરા ...	N;	4-0	1·5;	511;	82;	385	Avidha	1-0
938	Poṭīyāpāḍā DP પોટીયાપાડા	W;	6-0	1·6					
939	Prāṅkaḍ JD પ્રાંકડ ...	N;	12-4	1 4;	409;	78;	291	Bhalod	1-0
940	Pratāpanagar ND પ્રતાપનગર	SW;	12-0	2·6;	1232;	230;	1006	Local	
941	Pujārīgaḍh SR પુજારીગઢ	S;	12-0	2·1;	129;	23;	129	Korai	16-0
942	Punagām AK પુનગામ ...	W;	3-6	1·4;	791;	187;	742	Sajod	2-0
943	Purasā AD પુરસા ...	W;	3-0	2·1;	680;	152;	575	Amod	3-0
944	Rachavāḍā SR રછવાડા ..	S;	6-0	0·6;	154;	28;	154	Korai	10-0
945	Rahāḍ VG રહાડ ...	E;	3-0	2·8;	526;	95;	470	Vagra	2-4
946	Rahāḍpor BR રહાડપોર ...	N;	2-0	0·5;	156;	32;	156		
947	Rahīyād VG રહીયાદ ...	SW;	15-4	5 5;	790;	178;	535	Dahej	6-0
948	Rājapīpalā ND રાજપીપલા	H.Q.		1·3;	17420;	3887;	1999	Local	
949	Rājāpor JD રાજાપોર ...	S;	6-4	1·7;	116;	24;	111	Dharoli	3-0
950	Rājgaḍh VL રાજગઢ ...	S;	5-0	2·1;	725;	115;	624	Sodgam	5-0

Railway St.; Distance.	Weekly Bazar; Bazar Day; Distance.	Motor Stand; Distance.	Drinking water facilities.	Institutions and other information.
		Kelod 1-4	w	sl(pr) ; cs (mp) , 4tl ; dg ; dh ; ch.
Pakhajan 1-0		Vagra 7-0	w ; t	sl(pr) ; cs (c) , mq : dg.
Kevdi Road 1-0		Kakadpada 1-4	str	
Khanwara 14-0	Jodwan Mon. 3-0	Selamba 8-0	rv	
Dadhal 3-0		Dadhal 3-0	w	cs(c) . mq.
Kevdi Road 11-0		Ambavadi 3-0	w	
Netrang 33-0		Dediapada 16-0	str	
Ankleshwar 0-4		Ankleshwar 0-4	w	sl(pr, m) ; cs (mp) ; mq : 4dg : Church.
Kavdi 33-0	Selamba. Sun. 2-2	Selamba 5-0	str	
Vagra 2-0		Vagra 2-0	w ; t	sl(pr) ; cs (c) ; tl ; mq ; dg.
Mangrol 7-0		Dehali 0-4	rv	sl(pr).
Chandod 1-0		Local	w ; rv	sl(pr) ; tl ; dg ; dh.
Netrang 8-0		Dediapada 8-0	w	
Rajpardi 2-4		Simdhara 2-0	w	sl(pr) ; 2tl.
				Deserted.
Rajpardi 3-0		0-4	w	sl(pr) ; 2tl ; dh.
Juna Raju-vadia. 0-2		Local	w	sl(pr) ; 2tl ; 2dg ; 2dh ; 2dp; ancient temple of Munichor.
Kavdi 32-0	Selamba Sun. 8-0	Sagbara 8-0	w ; str	
Ankleshwar 7-0			str	sl(pr) ; pyt ; cs(3) ; 2tl ; dh ; ch ; lib.
Amod 3-0	Amod ... 3-0	Amod 3-0	w	sl(pr) ; cs(mp) ; tl ; mq ; dg.
Khanwara 18-0	Jodwan Mon. 4-0	Selamba 4-0	str	
Vagra 2-4		Ankot 1-0	w	sl(pr) : cs(mp) ; 2tl ; dg ; dh : lib.
		Broach 1-4	w	
Sambheti 5-0		... 1-0	w	sl(pr) ; 2tl ; dg ; ch ; lib.
Local		Local	w ; pl ; rv ; t	sl(5pr, 2h) ; mun ; cs(4c) ; Harsiddhi Mata fr. Navaratri; As. Sud. 1-10 ; Shitlamata fr. Shr. Sud. 7 ; Kalikamata fr. Ct. Sud. 1—10 ; 41tl ; 2M . 3mq ; 5dg ; dh ; 2gym ; ch . 2lib ; 8dp ; Church ; Taluka H. Q. ; 2 Training Colleges ; Chattra vilas, Sadan Tower Juni Haveli, Victoria gate Bhilraja Statue.
Damlai 2-0		Jhagadia 6-0	w; str	tl.
Mangrol 4-0		Dehali 2-4	w; str	sl(pr) ; tl.

Serial No. ; Village/Town name ; Taluka abbreviation ; Village/Town name in Gujarati.	Direction from the Taluka/Peta H.Q. ; Travelling distance.		Area (sq. miles) ; Population ; Households ; Agricultural population.				Post Office : Distance.	
951 Rajhalavāḷā JD રઝલવાળા	S;	10–0	1·6;	265;	44;	207	Rajpardi	6–0
952 Rājpara JD રાજપરા ...	E;	8–4	0·6;	124;	18;	124	Umalla	3–0
953 Rājpara ND રાજપરા ...	W;	14–0	0·4;	603;	110;	519	Panetha	4–0
954 Rajparā VL રાજપરા ...	E;	9–4	1·3;	568;	96;	566	Dehali	5–0
955 Rājpārḍi JD રાજપારડી ...	E;	6–0	3·6;	3035;	604;	1825	Local	
956 Rājvaḍī VL રાજવાડી ...	SE;	23–0	3·3;	216;	39;	216	Dolatpur	8–0
957 Rākhaskuṇḍī DP રાખસકુંડી	NW;	2–0	0·5;	86;	14;	86		
958 Rālaḍā DP રાવદા ...	SE.	3–0	1·8;	66;	9;	65		
959 Rāmakoṭ JD રામકોટ ...	S;	14–0	1·2;	64;	13;	63	Netrang	4–0
960 Rāmbhavā DP રાંભવા ...	W;	4–0	1·2;	116;	19;	108		
961 Rāmagaḍh ND રામગઢ ...	S;	2–0	0·4;	171;	35;	171	Rajpipla	1–0
962 Rāmaparā ND રામપરા ...	NE;	8–0	0·6;	408;	85;	371	Vavdi	4–0
963 Rāmaparā ND રામપરા ...	W;	6–0	0·1;	83;	16;	83	Lachhras	4–0
964 Rāmapor JB રામપોર ...	W;	5–0	1·9;	407;	79;	371	Jambusar	4–0
965 Rāmapor JD રામપોર ...	S;	12–0	1·5;	116;	19;	85	Rajpardi	5–0
966 Raṇabuḍā SR રણબુડા ...	W;	11–0	2·0;	41;	6;	41	Korai	15–0
967 Ranāḍā AD રનાડા ...	S;	6–0	2·1;	344;	89;	344	Amod	7–0
968 Raṇḍeḍi JD રંદેડી ...	S;	8–0	0·5;	212;	36;	142	Limet	1–4
969 Rāṇīparā AD રાણીપરા ...	N;	1–4	1·6;	287;	60;	287	Amod	1–0
970 Rāṇīpara ND રાણીપરા ...	W;	4–0	0·4;	277;	46;	275	Rajpipla	2–0
971 Rāṇīpurā JD રાણીપુરા ...	W;	1–4	0·9;	1370;	261;	792	Jhagadia	1–0
972 Raselā ND રસેલા ...	N;	4–0	1·4;	475;	86;	471	Bhadam	2–0
973 Ratanpor JD રતનપોર ...	E;	3–0	6·2;	449;	101;	267	Jhagadia	2–4
974 Ravīdarā AK રવીદરા ...	S;	7–0	2·6;	864;	175;	804	Panoli	2–4
975 Rāyamā HT રાયમા ...	S;	3–2	2·6;	506;	199;	475	Hansot	4–0
976 Rāyasaṅgpurā JD રાયસંગપુરા	NE;	12–0	1·3;	560;	102;	507	Umalla	1–0
977 Rel ND રેલ ...	W;	13–0	0·7;	266;	41;	170	Umarva	1–0
978 Relavā DP રેલવા ...	S;	11–0	0·6;	123;	16;	119	Dediapada	15–0

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities.	Institutions and other information.
Rajpardi 6-0			w ; str	
Umalla 3-0				pyt.
Pratapnagar 4-0		Pratapnagar. 4-4	rv	sl(pr) ; 3tl ; dg.
Vankal 6-0		Dehali 6-0	w ; rv	sl(pr).
Local		Local	w	sl(pr, m) ; cs(c) ; 6tl ; mq ; dg. 3 dh ; ch ; lib ; 4dp ; P.W.D. Bungalow.
Netrang 12-0		Netrang 6-0	w ; str	
		Local	sp	
		Dediapada 4-0	str	
Gambhirpura. 12-0		Netrang 3-0	str	
		Ghantoli 2-0	str	cs(c).
Rajpipla 1-0			sp	
Rajpipla 9-0		Kubhasgam 2-0	str	
Rajpipla 10-0		Local	rv	Dashavatari Bhagwan fr. Aw. Sud. 15 and Ct. Sud. 15 ; 3tl ; 2dh ; Sarvodaya Satyadham Ashram.
Koteshwar 0-4			w ; t	sl(pr) ; cs(mp) ; 2tl.
Padwania 2-0			w	
Kavdi 25-0	Selamba Sun. 4-0	Chopadvav 1-0	w ; str	
Tanchha 1-0	Amod ... 7-0	Tanchha 1-0	w	sl (pr) ; tl ; dg.
Boridra 4-0		Talodra 1-0	w	
Amod 1-0	Amod ... 1-0	Amod 1-0	w ; t	dg.
Rajpipla 2-0			w	
Gumandev 0-6		Jhagadia	w	2sl(pr) ; 4tl ; lib.
Rajpipla 4-0		Local	w	sl(pr) ; tl.
Jhagadia 2-4		Simodra 1-4	w ; rv ; t	sl(pr) ; pyt ; Bawaghor Urs. Rajab 11 ; tl ; mq ; 3dg ; 2dh ; ch ; *Akik* stone quarries.
Panoli 2-4		Ankleshwar 8-0	pl	sl(pr) ; cs(c) ; mq ; ch ; lib.
Panoli 9-0	Hansot .. 4-0	Local	w ; t	sl(pr) ; tl ; dg ; ch.
Umalla 1-0		Umalla 1-0	w	sl(pr) ; ch.
Juna Rajuvadia. 2-0		Pratapnagar 2-0	w ; str	
Kavdi Road 9-0		Ambavadi 5-0	str	Ganapati fr. Mg. Vad. 4 ; tl-Ganapati.

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979	Revāāṃbā SR રેવા આંબા	W;	10-0	0·3					
980	Rīṅgaṇī ND રીંગણી ...	SW;	4-0	0·8;	232;	38;	232	Rajpipla	3-0
981	Rodh AD રોધ ...	E;	2-0	1·8;	328;	75;	223	Amod	2-0
982	Rohadā alias Kheṅgur DP રોહદા, ઉર્ફે ખેંગુર	SW;	7-0	2·8;	144;	25;	135		
983	Rohīd HT રોહીદ ...	S;	4-6	2·4;	672;	136;	611	Hansot	4-0
984	Rojadev SR રોજદેવ ...	S;	5-0	0·1;	268;	39;	267	Korai	14-0
985	Rozaghāṭ DP રોઝઘાટ ...	S;	12-0	0·9;	100;	11;	100	Kevdi	7-0
986	Roza Taṅkarīyā AD રોઝા ટંકારીયા	W;	7-0	6·1;	1236;	328;	1030	Amod	8-0
987	Rūkhal DP રૂખળ ...	SW;	11-0	1·0;	220;	39;	208	Kevdi	10-0
988	Rūmālpurā JD રૂમાલપુરા	E;	13-0	1·0;	126;	25;	126	Umalla	3-0
989	Rūnāḍ JB રૂનાડ ...	W;	9-0	3·4;	871;	203;	842	Kavi	6-0
990	Rūṇḍh ND રૂંઢ ...	N;	8-0	3·5;	1393;	245;	1323	Rajpipla	6-0
991	Rūṇḍh JD રૂંઢ ...	N;	11-0	2·0;	816;	180;	743	Bhalod	
992	Rūndhā VL રૂંધા ...	SE;	14-0	1·1;	552;	101;	517	Jankhavav	5-0
993	Rūpadevarī SR રૂપદેવરી	S;	12-0	0·9;	376;	56;	365	Korai	10-0
994	Rūpāṇīyā JD રૂપાણિયા ...	E;	9-4	2·0;	26;	3;	23	Umalla	3-0
995	Rupghāt JD રૂપઘાટ ...	S;	24-0	1·7;	155;	22;	155	Netrang	7-0
996	Sābarīā VL સાબરીઆ ...	SE;	15-0	1·8;	411;	60;	411	Jankhavav	6-0
997	Sābutī DP સાબુટી ...	S;	8-0	1·4;	174;	29;	174	Dediapada	18-0
998	Sācān VG સાચણ ...	N;	1-4	2·4;	518;	114;	395	Vagra	1-4
999	Sādā DP સાદા ...	N;	17-0	1·0;	247;	38;	241	Rajpipla	11-0
1000	Saḍathalā VG સડથલા...	S;	8-0	1·7;	266;	57;	158	Vagra	7-0
1001	Sāgabārā SR સાગબારા...	H.Q.		0·5;	518;	125;	356	Korai	12-0
1002	Sāgaḍīpāṇī SR સાગડીપાણી	S;	12-0						
1003	Sagāī DP સગાઈ ...	NE;	17-0	4·5;	127;	21;	125		
1004	Śāhaparā BR શાહપરા ...	NE;	13-4	1·9;	679;	137;	579	Nabipur	5-0
1005	Saherāv ND સહેરાવ ...	NE;	8-0	6·4;	1269;	242;	1002	Lachhras	4-0
1006	Sāhol HT સાહોલ ...	S;	10-4	2·0;	468;	110;	444	Ilav	1-4

Railway St.; Distance.		Weekly Bazar; Bazar Day; Distance.			Motor Stand; Distance.		Drinking water facilities.	Institutions and other information.
								Deserted.
Rajpipla	3-0						w	
Amod	2-4	Amod		2-0	Local		w ; t	sl(pr) ; cs(c, mp, mis) ; fr. Kalichaudas ; 4tl ; dg ; dh ; lib.
					Dediapada	9-0	rv	
Panoli	6-0	Hansot		4-0	Hansot	3-0	w ; t	sl(pr) ; cs(c) ; 2tl ; dg ; ch ; lib; Church.
Kavdi	24-0	Selamba	Sun.	3-0	Chopadvav	8-0	str	sl(pr) ; tl.
Kevdi Road	7-0				Dediapada	14-0	str	
Vagra	5-0	Amod		8-0	Vagra	6-0	w	sl(pr) ; tl ; mq: dg ; dh ; ch
Kevdi Road	10-0				Dediapada	12-0	str	
Umalla	3-0				Umalla	2-4	str	
Kangam	0-4						w	sl(pr) ; cs(c) ; tl ; dg ; ch ; lib.
Rajpipla	6-0				Jesalpore	2-4	w ; rv	sl(pr) ; 9tl ; ch.
Koral	1-4				Bhalod		rv	sl(pr) ; 2tl ; mq , dg ; 2dh ; dp.
Jankhavav	5-0				Jankhavav	5-0	w ; rv	sl(pr) ; Shivaratri fr. Mg. Vad 13 and Pir fr. Ct. Vad 7 , tl ; dh.
Khanwara	15-0	Jodwan	Mor.	5-0	Selamba	10-0	str	
Umalla	3-0				Umalla	3-0	str	pvt.
Netrang	7-0				Yal	4-0	w ; str	
Jankhavav	6-0				Dehali	8-0	w ; str.	fr. Mg. Vad 13
Kevdi Road	10-0				Ambavadi	8-0	w ; str	
Vagra	1-4				Vagra	1-4	w ; t	sl(pr) ; cs(c) ; 2tl ; M ; dg ; dh; ch ; lib.
Rajpipla	11-0					1-4	w ; rv	
Vahial	3-0				Vagra	5-0	w . t	tl ; ch.
Kavdi	28-0	Selamba	Sun.	3-4	Local		w	sl(pr) ; 2tl ; mq ; dg ; dp ; Peta H.Q. Deserted.
					Dediapada	17-4	str	
Varedia	3-0				Zanor	2-0	w	sl(pr) ; cs(c, fmg) ; 3tl ; dh ; ch.
Rajpipla	7-0				Lachhras	4-0	w ; rv	sl(pr) ; 2tl ; dh ; ch.
Kim	8-0	Ilav		1-4	Local		w	sl(pr) ; tl ; mq ; 2dg ; ch ; stone quarries.

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1007 Sajāṇaparā ND સજાણપરા	NE;	17–4	0·2;	117;	17;	117	Tanakhala	3–0
1008 Sajaṇavāv JD સજણવાવ	S;	10–0	1·0;	160;	36;	160	Umalla	6–0
1009 Sajaṇavāv DP સજણવાવ	SW;	10-0	1·3;	104;	16;	97	Kevdi	4–0
1010 Sajanvāv SR સજનવાવ	S;	11–0	0·4;	171;	32;	137	Korai	20–0
1011 Sajod AK સજોદ ...	W:	5–2	6·4;	2629;	550;	1953	Local	
1012 Sajvā ND સજવા ...	W;	2–0	0·5;	79	14	79	Rajpipla	2–0
1013 Sākavā VL સાકવા ...	E;	21–0	1·2;	143	25	138	Netrang	5–0
1014 Sākī DP સાકી ...	SE:	8–0	1·4;				......	
1015 Sakkarpor AK સક્કરપોર	W;	5–4	3·5;	1020	196	1010	Sajod	2–0
1016 Sākavā ND સાકવા ...	E.	9–0	1·3;	147	24	147	Vavdi	5–0
1017 Sākavā DP સાકવા ...	N:	3–0	2·0.				......	
1018 Salādarā VC સલાદરા...	E:	4–0	2·1.	580	117	471	Vagra	4–0
1019 Sālepor Sāṅgḍī JB સાલેપોર સાંગડી ...	W:	9–0	1·0;	76	17	65	Sigam	3–0
1020 Samalī HT સમલી ...	S;	10–4	1·9;	552	127	481	Hansot	10–0
1021 Samanī AD સમની ...	S;	8–0	4·1.	1325	378	873	Local	
1022 Samanī BR સમની ...	SW;	12–0	0·9;	136	28	131	Local	
1023 Sāmarapāḍā DP સામરપાડા ...	W;	5–0	0·1				......	
1024 Sāmarapāḍā Deval-ojāvālū DP સામરપાડા દેવલોજાવાળું	S:	12–0	0·3				......	
1025 Sāmarapāḍā (Nakaṭā-vāḷū) DP સામરપાડા (નકટાવાળું)	E;	10–0	0·9				......	
1026 Sāmarghāṭ DB સામરઘાટ	E;	11–0	0·5;				......	
1027 Samārīyā ND સમારીયા...	E;	8–0	1·9;	370;	56;	370	Vavdi	4–0
1028 Samarparā JD સમરપરા	E;	10–4	0·9;	95;	17;	10	Rajpardi	3–0
1029 Sāmarpāḍā DP સામરપાડા	S;	8–0	1·3;	398;	65;	370	Dediapada	8–0
1030 Sāmarpāḍā Sīdīvaḷū DP સામરપાડા સીદીવાળું	SE;	9–0	0·4;	183;	27;	178	Dediapada	9–0

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities.	Institutions and other information.
Tanakhala 3-0			w ; str	
Goratia 5-0			str	
Kevdi Road 4-0		Dediapada 13-0	str	
Kavdi 34-0	Selamba Sun. 10	Selamba 8-0	w. str	sl(pr) ; pyt.
Ankleshwar 5-0		Local	w ; st	2sl(pr) ; pyt ; cs(mp) ; Mahashivaratri-Mg. Vad. 13-14 ; 10tl ; dg ; dh ; ch ; lib ; 3dp ; Siddhanath Mahadev temple and Kakabalia temple.
Rajpipla 2-0		Rajpipla 1-0		
Netrang 5-0		Netrang 6-0	w	
				Deserted.
Ankleshwar 7-0		Pungam 2-0	w ; t	sl(pr) ; pyt ; tl ; dh ; ch.
Rajpipla 9-0		Samarkhad 1-0	w	
		Dediapada 4-0	str	Deserted.
Vagra 4-0		... 1-4	w	sl(pr) ; cs(c) ; 2tl ; mq ; 2dg ; dh ; ch.
Kangam 2-0			w	
Ankleshwar 23-4	Hansot ... 10	Ilav 8-0	w	sl(pr) ; cs(c) ; tl ; dg ; ch ; lib.
Local	Amod ... 6	Local	w ; t	2sl(pr) ; cs(mp) ; 3tl ; 2dg ; dh ; ch ; 3dp.
Local		Nawetha 2-4	w	2tl ; M.
......				Deserted.
......				Deserted.
......				Deserted.
......			w	Deserted.
Rajpipla 8-0		Samarkhad 1-0	w	
Rajpardi 3-0			str	pyt.
Netrang 8-0		Dediapada 9-0	w	sl(pr).
Kevdi Road 16-0		Local	w ; str	

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1031	Sāmatpor alias Galendī VG સામતપોર ઉર્ફે ગલેન્ડી	W;	14–0	1–1;	226;	42;	171	......	
1032	Sambhā JB સંભા ...	W;	9–0	2·1;	339;	68;	306	Sarod	5–0
1033	Sambhetī VG સંભેટી ...	W;	13–0	1·3;	271;	60;	165	Pakhajan	5–0
1034	Samīyālā AD સમીયાલા	W;	6–0	2 0;	128;	29;	127	Kerwada	1–0
1035	Sāmlod BR સામલોદ ...	NE;	11-4	2 9;	842;	180;	765	Local	
1036	Sāmoj JB સામોજ ...	N;	9–0	3·3;	759;	171;	682	Sarod	1–4
1037	Sāmor AK સામોર ...	E;	4–2	1·7;	572;	129;	475	Mandva Bujarg	1–0
1038	Sāmot DP સામોટ ...	E;	27–0	2·7;	323;	55;	317	......	
1039	Samserapará ND સમસેરપરા	E;	8–0	...	..	...	...	......	
1040	Samśerapurā ND સમશેરપુરા	NE;	17–2	0·4,	215,	36;	208	Tanakhala	4–0
1041	Saṇadharā ND સણધરા...	SW.	7–0	1·8;	104;	18;	104	Amletha	1–4
1042	Sáṇakoi JD શણકોઈ ...	S;	20–0	4·2;	577;	102;	573	Netrang	5–0
1043	Sāñcāvāḍī VL સાંચાવાડી	S;	11–0	0·4;	32;	6;	32	Jankhavav	5–0
1044	Sāṇḍhīyā ND સાંઢીયા ...	SW;	7–0	1·6;	230;	43;	171	Gardeshwar	3–0
1045	Sañjālī JD સંજાલી ...	NE;	12–4	3·0;	481;	171;	796	Umalla	3–0
1046	Sañjālī AK સંજાલી ...	E;	5–4	1 5;	568;	124;	491	Panoli	2–0
1047	Sāñjarolī ND સાંજરોલી	NE;	13–4	1·1;	418;	75;	386	Gardeshwar	2–0
1048	Sāṅkalī DP સાંકળી ...	NE;	15–0	4·9,	47;	7;	47	Dediapada	13–0
1049	Saṅkhavāḍ BR સાંખવાડ	NW;	10–0	1·9;	390;	73;	366	Broach	
1050	Saphīparā AK સફીપરા.	...		...	...	...	...	......	
1051	Sarabhāṇ AD સરભાણ	E;	5–4	6·9;	2376;	463;	1397	Local	
1052	Saradārpurā JB સરદારપુરા	W;	8 0	1·5;	149;	31;	145	Tankari	4–0
1053	Sāraṇ VG સારણ ...	S;	1–0	3·1;	783;	149;	558	Vagra	2–4
1054	Saranār BR સરનાર ...	NW;	8–4	1·3;	461;	91;	393		
1055	Sāraṅgapur AK સારંગપુર	E;	5·0	2·1;	433;	92;	412	Dadhal	0–2
1056	Sārasā JD સારસા ...	NE;	7–0	2·4;	994;	190;	917	Rajpardi	1–0
1057	Sarathāṇ AK સરથાણ ...	W;	7–0	3·1;	623;	126;	614	Shera	4–0

Railway St.; Distance.		Weekly Bazar; Bazar Day; Distance.		Motor Stand; Distance.		Drinking water facilities.	Institutions and other information.
						w	cs(c); tl; dg.
Kora	2-0			Local		w; t	sl(pr); tl; M; dg; ch.
Local						w	cs(c); tl; dg.
Tanchha	2-0	Amod	7-0	Kerwada	1-0	w	dg.
Nabipur	4-0			Dabhali	0-6	w	sl(pr); cs(c); 3tl; lib; Church.
Kora	4-0			Sarod	1-0	w	sl(pr); tl; ch.
Ankleshwar	4-4			Ankleshwar	4-0	w; t	sl(pr); pyt; tl; dg.
				Dediapada	2-4	w; str	
							Deserted.
Tanakhala	4-0			Indravarna	5-0		
Amletha	1-4					str	
Netrang	5-0			Netrang	2-0	w	sl(pr).
Jankhavav	5-0			Dehali	7-0	w	
Tanakhala	3-0					w; str	tl.
Umalla	3-0			Haripara	1-4	w	tl; dg.
Panoli	2-0			Ankle-shwar.	5-2	w; t	sl(pr); cs(c); mq.
Rajpipla	8-0					w; rv	sl (pr).
Netrang	31-0			Dediapada	15-0	str	
Nawetha				Amleshwar	1-0	w	sl(pr); 2tl; mq; dg; ch.
							Deserted.
Amod	5-0	Amod	6-0	Local		w; t	sl(2pr, h); pyt; cs(mp); 4tl; M; mq; dg; dh; ch; lib 3dp.
Jambusar	8-0			Dolia	2-0	t	tl.
Vagra	2-4			Vagra		w; t	sl(pr); cs(c); tl; mq; dg; ch.
				Derol	3-0	w	sl(pr); cs(mp); mq; 5dg.
Dadhal	0-2			Dadhal	0-2	w	sl(pr); cs(c); 2dg.
Rajpardi	1-0			Rajpardi	1-0	w	sl(pr); 2tl; dg; dh.
Ankleshwar	10-0			Matied	1-4	w; t	2sl(pr); Haji Pir fr. Rajab 6 mq; dg; ch; Muslim Khoja Jamatkhana.

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1058 Sardārparā JD સરદારપરા	SW;	7-4	0·7;	272;	47;	169	Jhagadia	5-0
1059 Sarībār DP સરીબાર...	E;	25-0	1·7;	52;	9;	48	Dediapada	25-0
1060 Sārod JB સારોદ ...	N;	9-0	19·7;	4635;	852;	2888	Local	
1061 Sarsāḍ JD સરસાડ ...	NE.	13-0	2·9;	449;	89;	442	Umalla	5-0
1062 Sāyakhā VG સાયખા...	S;	5-4	6·0;	670;	148;	594	Vagra	5-0
1063 Sāyaṇ HT સાયણ ...	S;	4-0	4·1,	887;	110;	878	Hansot	3-4
1064 Segavā BR સેગવા ...	NE;	11-0	2·7;	973;	195;	969	Local	
1065 Sejpor DP સેજપોર ...	W;	8-0	0·9;	100;	21;	90	Dediapada	8-0
1066 Selaāmbā SR સેલઆંબા	E;	3-0	1·2;	325;	69;	197	Korai	8-0
1067 Selod JD સેલોદ ...	S;	3-0	2·8;	733;	137;	688	Jhagadia	4-0
1068 Seṅgparā ND સેંગપરા	E.	7-0	0·7.	67;	10;	67	Rajpipla	7-0
1069 Seṅgpor AK સેંગપોર ...	E;	7-6	5·2;	1277;	236;	1131	Jitali	3-0
1070 Śerā HT શેરા ...	E;	3-0	2·9;	514;	99;	456	Local	
1071 Seravāī DP સેરવાઈ ...	SE;	9-0	1·2,	13;	2;	13	......	
1072 Śerparā BR શેરપરા ...	NW;	4-0	0·6,	1002;	176;	975	Broach	2-0
1073 Sevaḍ VL સેવડ ...	E,	9-0	3·1,	571;	93,	571	Dolatpur	2-0
1074 Sīgām JB સીગામ ...	W.	10-0	7·0,	1881;	300;	1758	Local	
1075 Sīluḍī VL સીલુડી ...	W.	6-4	3·5;	694,	120;	682	Valia	5-0
1076 Sīmakhāḍī SR સીમખાડી	W;	3-0	0·3.	.	...	...	......	
1077 Sīmalīyā BR સીમલીયા ...	N;	17-0	1·6;	520.	111;	413	Kelod	1-4
1078 Sīmaāmalī SR સીમઆમલી	W;	3-0	1·3;	205;	37;	205	Korai	15-0
1079 Sīmarathā AD સીમરથા...	SE;	6-0	1·0;	299;	67;	231	Samni	4-0
1080 Sīmdharā JD સીમધરા...	E;	3-4	0·4;	238;	50;	204	Avidha	1-4
1081 Sīnāḍā VL સીનાડા ...	S;	4-0	0·8;	321;	49;	305	Valia	4-0
1082 Sīndhav JB સીંધવ ...	W;	12-0	4 1;	358,	84;	281	Tankari	4-0
1083 Sīndhot BR સીંધોત ...	NE;	13-0	1·3;	549;	107;	492	.....	
1084 Sīṅgalā VL સીંગલા ...	NE;	6-0	2·1;	292;	55;	291	Dehali	3-0
1085 Sīṅgalgabhāṇ DP ... સીંગળગભાણ	NE;	9-0	1·7;	..	...	...	......	
1086 Sīṅgalvāṇ DP સીંગલવાણ	W;	4-0	1·9;	65;	8;	59	Dediapada	5-0

Railway St.; Distance.	Weekly Bazar; Bazar Day; Distance.	Motor Stand; Distance.	Drinking water facilities.	Institutions and other information.
Kharchi 2-0		Kharchi 1-0	w ; t	tl.
Netrang 43-0		Dediapada 25-4	rv	
Kora 5-0		Local (except in monsoon).	w	3sl(pr) ; pyt; 2tl (Mahadev and Ramji) ; 2mq ; ch ; dp.
Umalla 5-0		Rajpardi 5-0	w ; rv	cs(c) ; Godavari fr. *Simhasta* year every 12 years ; 4tl ; dh ; historic temple of Siddheshwar Mahadev.
Vahial 5-0		Vagra 4-0	w ; t	sl(pr) ; cs(c) ; 2tl ; M ; 2dg ; dh ; ch.
Ankleshwar	Hansot 3-4	Alwa 1-0	w ; t	sl(pr) ; 2tl ; mq ; dg.
Varedia 1-0			w	sl(pr) ; cs(c) ; mq ; 2dg ; dh.
Netrang 9-0			w ; rv	
Kavdi 25-0	Local Sun.	Local	w ; str	sl(pr) ; tl ; mq ; lib ; 2dp.
Jhagadia 4-0		Local	w : str	sl(pr); 4tl ; dg ; temples of Nilkantheswar Mahadev, Veraimata, Baliakaka and Bhathiji.
Rajpipla 7-0		Hirapara 2-0	str	
Dadhal 4-0		Dadhal 3-0	w ; t ; rv	sl(pr) ; cs(mp) ; 2tl ; mq ; 2dg ; *Akik* stone quarries.
Ankleshwar 9-0	Hansot 2-4	0-4	w	sl(pr) ; pyt ; 3cs(c) ; tl ; dg ; dh ; ch ; lib ; dp.
		Ambavadi 2-4	w	forest village.
Broach 2-0		Broach 1-0	w	sl(pr) ; mq ; dg.
Netrang 5-0		Navanagar 3-0	w ; str	sl(pr).
Kora 5-0			w	2sl(pr) ; cs(c) ; 2tl ; M ; mq ; ch ; lib ; 2dp.
Mangrol 5-0		Valia 5-0	w	sl(pr) ; mq ; dg ; ch.
				Deserted.
Kelod 1-4		Local	w	sl(pr) ; 2tl ; dg ; ch.
Kavdi 23-0	Selamba Sun. 6-0	Chopadvav 2-0	w ; str	
Samni 4-0	Amod 8-0	Samni 4-0	w	sl(pr) ; cs(c) ; 2tl ; dg ; ch ; lib.
Rajpardi 1-0		Local	w	
Mangrol 4-0		Valia 2-0	str	
Kora 7-0		Local	w	sl(pr) ; cs(c) ; tl ; M ; mq ; 2dg ch.
		Nikora 1-0	w	sl(pr) ; tl ; dh ; ch.
Netrang 10-0		Dehali 3-0	rv	
				Deserted.
Netrang 12-0		Koilivav 1-0	w ; str	

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1087 Sīṅgalvāṇ VL સીંગલવાણ	NE;	13-4	1·3;	321;	66;	310	Netrang	5-0
1088 Sīṅgaraṇā JB સીંગરણા	W;	8-0	1·6;	163;	30;	139	Tankari	2-0
1089 Śīr JD શીર ...	E;	12-0	0·4;	143;	28;	143	Pratapnagar	1-4
1090 Śīr ND શીર ...	E;	22-4	0·4;	55;	11;	48	Tanakhala	7-0
1091 Śīr VL શીર ...	NE;	10-4	1·6;	550;	85;	549	Dolatpur	1-0
1092 Sīsā DP સીસા ...	E;	24-0	3·4;	196;	34;	192	......	
1093 Śīśakuṭā DP શીશકુટા ...	E;	16-0	0·9;	67;	14;	48	......	
1094 Sīsodarā ND સીસોદરા...	NW;	11-0	5·2;	2355;	476;	1259	Local	
1095 Sīsodarā AK સીસોદરા...	S;	11-0	5·6;	962;	215;	889	Local	
1096 Sītapoṇ BR સીતપોણ ...	N;	11-0	3·9;	1777;	339;	1428	Nabipur	2-0
1097 Śiyālī JD શીયાળી ...	S;	9-0	2·3;	495;	81;	479	Dharoli	2-0
1098 Śīyānī DP શીયાની ...	S;	5-0	0·4	...	...	...	......	
1099 Soḍagām VL સોડગામ...	SE;	4-0	1·6;	976;	149;	819	Local	
1100 Soḍhalīyā ND સોઢલીયા	N;	7-0	1·3;	341;	75;	285	Chandod	2-4
1101 Solīā DP સોલીઆ ...	W;	7-0	3·1;	649;	88;	614	......	
1102 Sonāmā AD સોનામા...	S;	3-0	1·4;	217;	41;	161	Amod	3-0
1103 Sonāravāḍī SR સોનારવાડી	S;	6-0	0·1;	...	...	...	......	
1104 Sonārīā ND સોનારીઆ	NE,	17-0	0 7;	69;	14;	66	Tilakwada	6-0
1105 Songām ND સોનગામ ...	NE;	18-4	1·0;	300;	49;	284	Tanakhala	2-0
1106 Sorapāḍā DP સોરાપાડા...	S,	6-0	1·7	...	...	...	......	
1107 Sorāpāḍā SR સોરાપાડા...	S;	9-0	1 9;	189;	32;	182	Korai	18-0
1108 Sorāpallī DP સોરાપલ્લી	SE;	10-0	0·3	...	...	...	......	
1109 Soratā SR સોરતા ...	S;	10-0	0·2;	51;	8;	44	Korai	20-0
1110 Śrīkoṭhī AD શ્રીકોઠી ...	E;	4-0	2·0;	480;	102;	443	Amod	3-0
1111 Suḍī AD સુડી ...	S;	9-0	2·7;	495;	112;	435	Amod	7-0
1112 Sukā ND સુકા ...	NE;	17-0	0 8;	112;	27;	99	Tanakhala	2-0
1113 Śuklatīrth BR શુકલતીર્થ	NE;	12-0	5·7;	3482;	655;	2474	Local	

Railway St.; Distance.		Weekly Bazar; Bazar Day; Distance.			Motor Stand; Distance.		Drinking water facilities.	Institutions and other information.
Netrang	5-0				Local		w ; str	
Jambusar	1-0				Tankari	3-0	w ; t	sl(pr) ; tl ; ch.
Pratapnagar	1-4				Pratap-nagar.	2-0	w ; str	
Tanakhala	7-0						str	
Netrang	5-0				Navanagar	1-0	w ; rv	sl(pr).
....					Dediapada	24-0	str	
....					....		str	
Amletha	5-0				Local		w ; rv	2sl(pr) ; cs(mp) ; 4tl ; mq ; dg ; 3dh ; ch ; lib ; dp.
Kosamba	4-0				Sunev	4-0	w ; t	sl(pr) ; cs(c) ; 3tl ; 3dg ; db; ch ; lib ; dp.
Nabipur	2-0				....		w	2sl(pr) ; cs(c) ; mq ; 2dg ; lib.
Padwania	2-0				Dharoli	2-0	w ; str	sl(pr).
....					...			Deserted.
Mangrol	17-0				Dehali	2-0	w ; str	sl(pr) ; tl ; ch ; lib.
Chandod	2-4				Jesalpur	4-0	w ; rv	sl(pr).
						1-4	w ; rv	sl(pr).
Nahier	2-0	Amod	...	3	Nahier	1-4	w ; t	tl.
								Deserted.
Tanakhala	5-0						w	
Tanakhala	2-0						w ; str	
					Dediapada	4-0	w	Deserted.
Kavdi	30-0	Selamba	Sun.	8	Sagbara	6-0	w	sl(pr).
								Deserted.
Kavdi	28-0	Selamba	Sun.	10	Sagbara	9-0	w	
Amod	3-0	Amod	...	3	Amod	3-0		sl(pr) ; cs(c) ; 2tl ; dh.
Samni	1-0	Amod	...	7	Samni	1-0	w	sl(pr) ; cs(c) ; 2tl ; mq ; dg.
Tanakhala	2-0						w ; str	sl(pr).
Jhagadia	3-0				Local		w ; rv	sl(2pr, h) ; pyt ; cs(c) ; Shukleshwar Mahadev fr. Kt. Sud 15 ; 10tl ; 2M ; 2dg ; 2dh ; ch ; lib ; 5dp ; old and historic temples of Omkareshwar Mahadev and Shukleshwar Mahadev ; D. L. B. Bungalow.

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1114 Sukanī Umaran DP સુકની ઉમરન	S 6–0	1·9, ...	......
1115 Sukvāl DP સુકવાલ ...	E; 8–0	1·9; 114; 15; 103	Dediapada 10–0
1116 Sultānaparā ND સુલ્તાનપરા	N E; 16–2	0·6; 74; 14; 74	Tilakwada 5–4
1117 Sultānpūrā JD સુલ્તાનપુરા.	E 0–1	2·7; 2473; 333; 750	Jhagadia 1–0
1118 Sunderparā ND સુંદરપરા.	SE; 3–4	1·5; 585; 101; 451	Rajpipla 4–0
1119 Suṇevakallā HT સુણેવકલ્લા.	S; 7–0	4·6; 970; 206; 911	Ilav 4–0
1120 Suṇevkhurd HT સુણેવખુર્દ.	S; 7–0	2·8; 819; 178; 776	Ilav 4–0
1121 Sunṭhodarā AD સુંઠોદરા	E; 10–0	0·1; 180; 36; 179	Matar 2–0
1122 Surajvaḍ ND સુરજવડ ...	E; 8–0	0·7; 198; 34; 197	Vavdi 4–0
1123 Surapāṇ ND સુરપાણ ...	SE; 18–0	6·9; 160; 24; 154	Gardeshwar 12–0
1124 Suravāḍī AK સુરવાડી ...	N; 2–0	1·3; 363; 80; 300	Ankleshwar 2–0
1125 Suravāṇī ND સુરવાણી ...	E; 20–4	0·4; 105; 17; 105	Tanakhala 8–0
1126 Sutrel VG સુત્રેલ ...	SW; 4–0	2·2; 518, 109; 349	Vagra 3–0
1127 Suvā VG સુવા ...	SW; 15–0	4·9; 689; 140; 678	Dahej 5–0
1128 Tābadā DP તાબદા ...	SW; 11–0	2·0; 390; 54; 370	Kevdi 1–4
1129 Ṭākani SR ટાકની ...	S; 11–0	0·4; 56; 10; 56	Korai 16–0
1130 Talodarā JD તલોદરા ...	S; 7–0	4·7; 811; 176; 762	Limet 1–0
1131 Taṇacha AD તણછા ...	S; 5–4	2·1; 586; 132; 507	Kerwada 2–0
1132 Ṭaṇkārī ND ટંકારી ...	N; 6–0	2·6; 717; 144; 592	Lachhras 2–0
1133 Ṭaṇkārī JB ટંકારી ...	W; 10–0	17·0; 1754; 389; 1469	Local
1134 Ṭaṅkārīā BR ટંકારીઆ...	N; 12–0	5·2; 4034; 809; 3225	Local
1135 Tarapaḍā SR તારપાડા...	S; 8–0	0·5; 84; 13; 84	Korai 10–0
1136 Tarasālī JD તરસાલી ...	N; 12–4	1·6; 744; 148; 735	Bhalod 3–0
1137 Tarīā BR તરીઆ ...	SW; 9–0	4·3; 1513; 311; 1432	Bhadbhut 4–0
1138 Taropā ND તરોપા ...	W; 5–0	2·0; 1077; 196; 1008	Amletha 2–0
1139 Taṭakhāḍī DP તાટખાડી	S; 4–0	1·1;	......
1140 Tavaḍī JD તવડી ...	E; 13–0	1·3; 394; 70; 391	Pratapnagar 0–4

Railway St.; Distance.		Weekly Bazar; Bazar Day; Distance.			Motor Stand; Distance.		Drinking water facilities.	Institutions and other information.
								Deserted.
Netrang	28–0				Dediapada	10–0	w	
Tilakwada	5–4						str	
Jhagadia	1–0				Local		w; rv; str	sl(pr. h); pyt; tl; mq; dg; dh; gym. lib; 2dp; temple of Limabeshwar Mahadev, Akik stone quarries.
Rajpipla	4–0				Rajpipla	4–0	rv	sl(pr); 2tl.
Kosamba	7–0	Ilav	..	4		0–4	w; t	sl(pr); 4tl; dg; ch; lib; dp.
Kosamba	7–0	Ilav	..	4		0–2	w; t	sl(pr); tl; ch; lib.
Palej	6–0	Amod	..	10	Matar	1–4	w	mq; dg.
Rajpipla	8–0				Hirapara	2–0	rv	
Rajpipla	21–0				Indravarna	14–0	rv	Surpaneshwar Mahadev fr.; Ct. Vad. 15; tl; dh; 10 sacred tanks; Chamadokarine Kund. Rudra Kund, Sitavadi etc.
Ankleshwar	3–0					0–4	w; t	sl(pr); tl; 2dg.
Tanakhala	8–0						str	
Vahicl	1–0				Vagra	4–0	w; tl	sl(pr); cs(mp); tl; M; mq; ch.
Dahej	5–0				Jolava	2–0	w	sl(pr); 2tl; dg; old Hanuman temple.
Kevdi Road	1–4				Dediapada	13–0	str	
Kavdi	28–0	Selamba	Sun.	8	Sagbara	6–0	w	
Boridra	3–0				Local		w	sl(pr); cs(c); 2tl; dg; ch; Dhaneshwer Mahadev temple.
Local	...	Amod	..	6–4	Local		w	sl(pr); cs(c); tl; dg; dh; lib.
Rajpipla	6–0				Lachhras	2–0	w	sl(pr); 2tl; dh; ch.
Jambusar	10–0				Local		w	sl(pr); pyt; cs(c); fr. Pir; 3tl; 2mq; 3dg, ch dp.
Varedia	3–0				Local		w	sl (2pr. h); cs (2c); Pir Popat fr. Ct. Vad; mq; 9dg; dp.
Kavdi	33–0	Selamba	Sun.	4	Selamba	4–0	str	
Kora	4–0				Bhalod	2–4	w; rv	sl (pr); cs (mp); tl; mq; dg; Talakeshwar Mahadev temple; Dargah of Syed Mian.
Broach	7–0						w	sl (pr); pyt; cs (c); 2tl; ch.
Amletha	2–0				Local		w; str	sl(m); Dev Dewali fr. Kt. Sud. 14; ch.
								Deserted.
Pratapnagar	0–4				Pratapnagar	1–0	w	

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1141 Ţāvaļ SR ટાવળ ...	S;	4-0	1·3;	416;	59;	407	Korai	12-0
1142 Tavarā and Tavarābet BR તવરા અને તવરાબેટ	NE;	6-0	7·3;	2335;	471;	1650	Broach	6-0
1143 Tegavā AD તેગવા ...	S;	4-0	2·5;	325;	66;	301	Amod	4-0
1144 Tejapur JD તેજપુર ...	E;	11-0	1·6;	194;	31;	172	Umalla	1-4
1145 Ţekavāḍā DP ટેકવાડા...	N;	7-0	1·2;	79;	15;	76	Dediapada	5-0
1146 Telavā AK તેલવા ...	W;	6-6	1·4;	262;	53;	261	Ankleshwar	8-0
1147 Telod AD તેલોદ ...	E;	10-2	2·1;	547;	127;	431	Dora	2-0
1148 Ţemrolīā VL ટેમરોલીઆ	E;	22-0	0·4;	94;	16;	94	Netrang	7-0
1149 Ţeṭavaī DP ટેટવઈ ...	S.	1-0	1·1;	10;	2;	2	...	
1150 Ţhākor Talāvaḍī JB ઠાકોર તલાવડી	W.	13-0	1·9.	114.	30;	110	Tankari	3-0
1151 Thām BR થામ ...	NW;	6-0	3·1;	672;	147;	598	Broach	4-4
1152 Thaṇāvā JB થણાવા ...	W.	10-0	0·5;	281;	55;	258	Kavi	7-0
1153 Thapāvī DP થપાવી ...	W;	7-0	0·4;	44;	9;	37	....	
1154 Tharī ND થરી ...	E;	4-0	0·5;	471;	86;	300	Rajpipla	5-0
1155 Thavā VL થવા ...	E;	25-0	0·9;	174;	35;	163	Netrang	8-0
1156 Thavaḍīā ND થવાડીઆ	E;	13-0	4·7.	63;	10;	62	Gardeshwar	9-0
1157 Ţhikarīā BR ઠીકરીઆ ...	N;	17-0	1·7;	327;	75;	292	Kisnad	1-0
1158 Ţilīpāḍā DP ટીલીપાડા	S;	10-0	0·7.	167;	29;	157	Dediapada	0-4
1159 Ţīmalā JD ટીમલા ...	S;	19-0	0·7;	217;	29;	217	Netrang.	4-0
1160 Ţīmaravā ND ટીમરવા...	E;	19-4	1·0.	252;	38;	246	Tanakhala	5-0
1161 Ţimbā SR ટીંબા ...	S;	14-0	0·2.	...	...	...	......	
1162 Ţimbī ND ટીંબી ...	S;	11-0	1·4;	478;	89;	424	Pratapnagar	1-0
1163 Ţīmbapāḍā DP ટીંબાપાડા	W;	2-0	0·7;	95;	13;	84	Dediapada	0-4
1164 Titaraghāṭ SR તીતરઘાટ	S;	13-0	0·2;	...	...	...	......	
1165 Tolavāī SR તોલવાઈ ...	S;	15-0	0·3;	...	...	...	......	
1166 Toraṇā ND તોરણા ...	N;	3-0	1·8;	511;	92;	368	Bhadam	1-0
1167 Ţoṭhīdarā JD ટોઠીદરા ...	N;	12-0	1·7;	723;	146;	494	Bhalod	2-0

Railway Station Distance.		Weekly Bazar ; Bazar Day ; Distance.		Motor Stand ; Distance.		Drinking water facilities.	Institutions and other information.
Kavdi	28-0	Selamba Sun ...	4	Sagbara	4-0	str	
Broach	6-0			Local		rv	2sl (pr) ; pyt ; cs (c) ; 7tl ; dg ; 4dh ; ch ; lib ; Kapileshwar Mahadev temple ; Natural *Shivalings* obtained from the river bed.
Nahier	2-0	Amod ...	2	Nahier	3-0	w ; t	sl (pr) ; pyt ; cs (c) ; 2tl ; ch ; lib.
Umalla	1-4			Umalla	2-0	w . str	sl (pr).
Rajpipla	22-0					w	
Panoli	4-0			Sajod	4-0	w ; t	cs (c) ; mq ; 2dg.
Palej	2-0	Amod ...	10	Matar	2-4	w	sl (pr) ; 3tl ; dg ; dh ; ch ; lib.
Netrang	7-0				0-1	w ; str	
				Dediapada	0-6	str	
Jambusar	13-0				1-0	w	M.
Local				Local	0-4	w	sl(pr) ; tl ; mq ; dg.
Kora	3-0					w	sl(pr) ; cs (c).
				Dediapada	8-0	w	
Rajpiplaa	5-0			Vavdi	2-0	w	sl(pr) ; tl.
Netrang	8-0			Local		w , rv	tl ; ancient Shivalaya temple.
Rajpiplaa	18-0			Indravarna	8-0	str	
Varedia	2-0				0-1	w	sl(pr) ; 2tl ; dh ; dh ; ch ; lib.
Netrang	16-0			Dediapada	14-0	str	
Netrang	4-0			Netrang	2-4	w ; str	
Tanakhala	5-0					w	
							Deserted.
Juna Rajuvadia	1-0			Gamkuva	1-4	str	sl(pr) ; ch.
Netrang	16-0			Dediapada	0-4	str	
							Deserted.
							Deserted.
Rajpipla	3-0			Bhadam	2-0	rv	sl(pr) ; 2dg.
Kora	3-0			Bhalod	1-4	w ; rv	sl(pr) ; 3tl ; dh ; lib

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1168 Trāṅkal VG ત્રાંકલ ...	N ;	13–0	3·0 ;	454 ;	109 ;	429	Pakhajan	5–0
1169 Trālasā BR ત્રાલસા ...	NW ;	8–0	5 8 ;	1489 ;	289 ;	1286	Local	
1170 Trālasī BR ત્રાલસી ...	NW ;	10–0	1 3 ;	327 ;	76 ;	282	Derol	
1171 Tukaner DP ટુકનેર ...	N ;	5–0	2 2.	...	..	...		
1172 Tumbaḍī ND તુંબડી...	N ;	9–0	0·01 ;	1 ;	1 ;	1.	Chandod	2–4
1173 Tunḍaj JB ટુંડજ ...	W ;	6 0	4·0 ;	968 ;	221 ;	815	Amanpore Mota.	1–4
1174 Tunṇā VL તુણા ...	SE ;	3–0	2 6 ;	692 ;	199 ;	647	Sodgam	1–0
1175 Uber JB ઉબેર ...	N ;	6–0	14 1 ;	2565 ;	543 ;	2410	Local	
1176 Ubhāriā SR ઉભારીઆ...	S ;	11–0	1·4 ;	418 ;	69 ;	417	Korai	14–0
1177 Ucchab JD ઉચ્છબ ...	E ;	8–0	1 0 ;	301 ;	58 ;	223	Umalla	1–4
1178 Ucchad JB ઉચ્છદ ...	E ;	5–0	2·9 ;	1200 ;	295 ;	1059	Gajera	3–0
1179 Uchālī AK ઉછાલી ...	E ,	5–4	1 7 ;	387 ;	81 ;	356	Dadhal	0–4
1180 Uceḍiā JD ઉચેડીઆ...	W ;	2–2	2·3 ;	1454 ;	299 ;	961	Jhagadia	2–0
1181 Udālī DP ઉદાલી ...	W ;	6–0	0 6 ,	15 ;	4 ;	15	Dediapada	7–0
1182 Umadharā JD ઉમધરા...	NE ,	12–4	1 9 ,	648 ;	130 ;	617	Rajpardi	3–4
1183 Umallā JD ઉમલ્લા ...	E ,	11–0	2·4 ;	1891 ;	492 ;	1115	Local	
1184 Umarā JB ઉમરા ...	N ,	3- 0	2 6 ;	532 ;	102 ;	416	Jambusar	3–0
1185 Umarā BR ઉમરા ...	NE ;	9–0	1·5 ;	278 ;	69 ;	266	Nabipur	2–0
1186 Umarabār AK ઉમરબાર								
1187 Umaradā SR ઉમરદા ...	S ;	12–0	2·7 ;	585 ;	90 ;	527	Korai	13–0
1188 Umargām VL ઉમરગામ	SE ;	4–4	0·9 ,	443 ;	71 ;	419	Sodgam	1–0
1189 Umarāj BR ઉમરાજ ...	NW ;	3–0	0·7 ;	562 ;	92 ;	535	Broach	2–0
1190 Umarakharaḍā JD ઉમરખરડા.	E ;	16–0	3·2 ;	163 ;	30 ;	163	Pratapnagar	5–0
1191 Umar Koī SR ઉમરકોઇ	S ;	9–0	0·1 ;	71 ;	13 ;	71	Korai	13–0
1192 Umarāṇ SR ઉમરાણ ...	W ;	10–0	0·4					
1193 Umarāṇ DP ઉમરાણ ...	S ;	7–0	1·5 ;	424 ;	67 ;	400	Kevdi	7–0
1194 Umaravā ND ઉમરવા ...	W ;	14–0	...	1500 ;	186 ;	1240	Gardeshwar	3–0
1195 Umaravā ND ઉમરવા...	E ;	8–0	3·8 ;	246 ;	37 ;	232	......	

Railway St. ; Distance.		Weekly Bazar ; Bazar Day ; Distance.		Motor Stand ; Distance.		Drinking water facilities	Institutions and other information.
Pakhajan	5-0			Muler	1-4	w	sl(pr) ; cs (mp) ; 2tl ; ch.
Dayadra	2-2			Dayadra	2-0	w	2sl(pr) ; cs (mp) ; 3tl ; dg ; dh ; ch ; lib ; 2dp ; Piran Pir Dargah.
Tralsamath	1-0			Derol	1-0	w	sl(pr) ; cs(c) ; 2tl ; dg ; lib ; temples of Ramji Maharaj and Lalji ; Khanpir Dargah.
......						...	Deserted.
Chandod	2-4			Jesalpor	4-0	rv	9dg.
Local						w ; t	sl(pr) ; cs(mp) ; Kesar pir fr. ; tl ; mq ; dg ; dh ; dp.
Mangrol	8-0			Dehali	1-0	w ; rv	Aghoreshwar Mahadev fr. Kt. Sud. 11-12 ; 2tl ; 2dh ; temples of Hanuman and Aghoreshwar Mahadev.
Jambusar	5-4			Jambusar	7-0	w	2sl(pr) ; pyt ; 2cs(c) ; 3tl ; ch ; lib ; 2dp.
Kavdi	30-0	Selamba	Sun. 8-0	Sagbara	8-0	w	sl(pr) ; dp.
Umalla	1-4			......		w	ch.
Mansar Road	1-4			Gajera	2-0	w	sl(pr) ; cs(c) ; 2tl ; ch.
Dadhal	0-4			Dadhal	0-2	w ; str	sl(pr).
Gumandev	0-4			......		w	sl(pr, m) ; Gumandev fr. Shr. every Saturday ; 5tl ; dg ; dp.
Netrang	11-0						
Rajpardi	3-4			Rajpardi	3-0	w	sl(pr) ; tl. ch.
Local				Local		w	2sl(pr, m) ; cs(c) ; 2tl ; dg ; ch ; lib.
Jambusar	3-0			Local		w	sl(pr) ; cs(mp) ; 2tl ; dg ; ch ; lib. ; dp.
Nabipur	2-0			.....		w	sl(pr) ; 2tl ; temples of Mahadev and Ramji.
						...	Deserted.
Khanwara	15-0	Jodwan	Mon. 3-0	Selamba	8-0	w	sl(pr).
Mangrol	8-0	Dehali	1-4			w ; str	sl(pr).
Broach	2-0			Broach	2-4	w	sl(pr) ; cs(fmg) ; mq ; dg ; ch.
Pratapnagar	5-0					str	
Khanwara	20-0	Jodwan	Mon. 4-0	Sagbara	6-0	o	
							Deserted.
Kevdi Road	7-0			Dediapada	14-0	w ; str	
Rajpipla	12-0			Umalla	3-4	w	sl(2pr, m) ; cs(c) ; 6tl ; dg ; lib.
......				Indravarna	3-0	str	

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1196 Umaravāḍā AK ઉમરવાડા	S ;	3-4	6·4 ;	1352 ;	220 ;	1169	Local	
1197 Uṇḍavā ND ઉંડવા ...	NE ;	17-2	1·5 ;	735 ;	126 ;	721	Tanakhala	3-4
1198 Uṇḍi DP ઉંડી ...	N ;	8-0	0·4 ;	...	...	...		
1199 Uṇḍī JD ઉંડી ...	S ;	12-0	1·2 ;	336 ;	57 ;	334	Netrang	3-4
1200 Uṇṭīādarā AK ઉંટીઆદરા ...	S ;	10-0	3·9 ;	455 ;	110 ;	429	Kosamba	1-4
1201 Uṇṭīyā JD ઉંટીયા ...	SW ;	7-4	1·0 ;	267 ;	49 ;	267	Jhagadia	6-0
1202 Uparālī BR ઉપરાલી ...	NE ;	10-0	1·2 ;	320 ;	64 ;	300	Nabipur	3-0
1203 Utarāj HT ઉતરાજ ...	S ;	1-0	2·2 ;	351 ;	68 ;	192	Hansot	1-0
1204 Vachanād VG વછનાદ...	E ;	4-4	2·3 ;	364 ;	80 ;	265	Vagra	5-0
1205 Vaḍ JB વડ ...	W ;	10-0	1·9 ;	228 ;	46 ;	227	Jantran	3-0
1206 Vaḍadalā JB વડદલા ...	W ;	9-0	2·5 ;	839 ;	173 ;	707	Kavi	6-0
1207 Vaḍadalā BR વડદલા ...	NE ;	6-0	1·9 ;	390 ;	95 ;	162	Zadeshwar	1-0
1208 Vaḍadalā VG વડદલા ...	SW ;	15-0	2·6 ;	240 ;	58 ;	134	Dahej	4-0
1209 Vaḍakhuṇṭā JD વડખુંટા	S ;	13-4	3·3 ;	271 ;	51 ;	270	Umalla	5-0
1210 Vaḍapāḍā DP વડપાડા	S ;	11-0	0·9 ;	108 ;	12 ,	108	Kevdi	12-0
1211 Vaḍapāḍā DP વડપાડા ...	SE ;	7-0	0·9 ;	71 ;	13 ;	65	Dediapada	12-0
1212 Vaḍapān JD વડપાન ...	S ;	18-0	1·1 ;	303 ;	50 ;	303	Netrang	2-0
1213 Vaḍavā BR વડવા ...	W ;	6-0	1·5 ;	319 ;	58 ;	308	Broach	7-0
1214 Vaḍgām ND વડગામ...	E ;	21-0	7·3 ;	724 ;	125 ;	654	Gardeshwar	11-0
1215 Vāḍhavā DP વઢવા ...	S ;	12-0	1·7 ;	339 ;	54 ;	321	Kevdi	7-0
1216 Vadhavāṇ HT વઢવાણ ...	W ;	5-6	2·5 ;	405 ;	84 ;	377	Hansot	5-4
1217 Vaḍhavāṇā JD વઢવાણા	E ;	13-0	0·8 ;	393 ;	81 ;	381	Umalla	4-0
1218 Vāḍī ND વાડી ...	NE ;	16-0	1·1 ;	273 ;	59 ;	260	Tanakhala	4-0
1219 Vāḍīā AD વાડીઆ ...	N ;	2-4	3·2 ;	419 ;	82 ;	365	Amod	3-0
1220 Vaḍīā ND વડીઆ ...	E ;	1-4	1·3 ;	690 ;	123 ;	300	Rajpipla	1-0
1221 Vaḍīvāv DP વડીવાવ ...	S ;	4-0	0·4	...	...	...		
1222 Vāgaḍīā ND વાગડીઆ...	E ;	15-0	0·9 ;	250 ;	37 ;	226	Gardeshwar	3-0

Railway St.; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities	Institutions and other information.
Panoli 3-0		Ankleshwar 4-0	w ; t.	sl(pr) ; pyt ; cs(mp) ; 2mq ; 4dg; lib ; dp ; sacred tank with masonry sidewalls constructed during the times of Siddharaj.
Tanakhala 3-4		Indravarna 10-0	str.	sl(pr).
		Pungam 2-0	str.	Deserted.
Netrang 3-4		Netrang 3-4	str.	sl(pr) ; cs(c).
Kosamba 1-4			w ; t.	sl(pr) ; cs(c) ; tl ; mq ; 2dg ; dh ; ch.
Kharchi 2-0		Kharchi 1-4	w ; t.	
Nabipur 3-0			w.	sl(pr) ; cs(c) ; tl ; dg.
Ankleshwar 12-0	Hansot 1-0	Hansot 1-0	w ; t.	sl(pr) ; tl ; dg ; ch ; lib.
Samni 1-0		Samni 1-0	w.	sl(pr) ; cs(mp) ; tl ; dg ; ch.
Kora 3-0		Panchkada 1-0	w.	tl ; dg.
Kora 2-0			w.	sl(pr) ; tl ; M ; ch ; lib.
Chavaj 0-2			w.	sl(pr) ; tl ; dg ; dh.
Sambheti 3-0		Tolava 0-4	w ; t.	2tl.
Umalla 5-0			w ; str.	tl ; Hanuman temple.
Kevdi Road 12-0		Kakadapada 2-0	w ; str.	
Kevdi Road 14-0		Dediapada 14-0	w ; str.	
Netrang 2-0		Netrang 2-0	w.	
Broach 7-0		Vesadada 1-4	o.	sl(pr) , cs(mp) ; tl ; mq.
Tanakhala 12-0			rv	sl(pr).
Kevdi Road 7-0		Dediapada 11-0	str.	
Ankeslhwar 18-6	Hansot 5-4	Ilav 5-0	w ; t.	tl ; dg.
Umalla 4-0		Rajpardi 5-0	w ; rv	tl.
Tanakhala 4-0		Indravarna 6-0	w ; str	sl(pr) ; ch.
Amod 3-0	Amod 3-0	Amod 3-0	w ; t ; rv.	sl(pr) ; Rameshwar Mahadev fr. Ct. Sud. 15 ; M.
Rajpipla 1-0		Rajpiplaa 1-0	pl.	sl(pr) ; Shitla Mata fr. Shr. Sud. 7 ; tl ; big bungalow known as "Vadia Palace".
		Kakadpada 1-0	w.	Deserted.
Rajpipla 12-0		9-0	rv.	

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1223 Vāgaḍ Khol VL વાગડ ખોલ ...	NE ;	4-0	1·6 ;	721 ;	116 ;	686	Ghantoli	2-0
1224 Vāgethā ND વાગેથા ...	W ;	5-0	2·4 ;	1089 ;	212 ;	1010	Rajpipla	4-0
1225 Vāghaparā JD વાઘપરા	E ;	11-0	0·8 ;	1070 ;	213 ;	623	Umalla	0-1
1226 Vagharāli ND વઘરાલી...	NE ;	21-0	1·9 ;	249 ;	43 ;	208	Tanakhala	5-0
1227 Vāghoḍiā ND વાઘોડીઆ	W ;	11-0	2·0 ;	677 ;	109 ;	573	Pratapnagar	3-0
1228 Vāghparā JD વાઘપરા...	E ;	1-4	1·3 ;	127 ;	29 ;	79	Jhagadia	1-0
1229 Vāghumar DP વાઘઉમર	NE ;	19-0	1·9 ;	100 ;	19 ;	91	Dediapada	20-0
1230 Vāghvāī DP વાઘવાઈ ..	S ;	20-0	0·1 ;	...	...	...		
1231 Vāgarā VG વાગરા ...	H.Q.	...	5·8 ;	2856 ;	696 ;	783	Local	
1232 Vagusaṇā BR વગુસણા ...	E ;	5-4	0·8 ,	270 ;	58 ;	158	Nabipur	2-0
1233 Vahālu BR વહાલુ ...	NW ;	8-0	2·7 ;	1095 ;	209 ;	992	Derol	1-0
1234 Vahelam JB વહેલમ ...	E ;	5-0	2·1 ;	505 ;	118 ;	448	Gajera	5-0
1235 Vahīyal VG વહીયાળ ...	W ;	3-0	7·0 ;	969 ;	218 ;	642	Vagara	4-0
1236 Valā JD વલા	E ;	13-0	2·6 ;	269 ;	54 ;	269	Pratapnagar	1-0
1237 Vālaner HT વાલનેર ...	SE ,	4-0	4·4 ;	953 ;	211 ;	904	Hansot	3-0
1238 Valī JD વલી ...	E ;	11-4	1·7 ;	316 ;	67 ;	291	Umalla	2-0
1239 Vālīā VL વાલીઆ ...	H.Q.	...	2·5 ;	1176 ;	238 ;	655	Local	
1240 Valīpor JB વલીપોર ...	S ;	6-0	4·6 ,	264 ;	59 ;	250	Mondhana	0-2
1241 Valīpor AD વલીપોર ...	W ;	9-0	1·0 ;	186 ;	35 ;	186	Amod	6-0
1242 Vālparā ND વાલપરા ...	NE ;	19-4	0·2 ;	60 ;	11 ;	60	Tanakhala	2-0
1243 Vālpor JD વાલપોર ...	SE ;	24-0	1·2 ;	329 ;	58 ;	322	Netrang	7-0
1244 Vamaleśvar HT વમલેશ્વર	W ;	9-4	3·7 ;	513 ;	130 ;	452	Hansot	10-0
1245 Vāndardelī JD વાંદરદેલી	SE ;	24-0	1·7 ;	65 ;	14 ;	65	Netrang	9-0
1246 Vāndarī DP વાંદરી ...	NE ;	24-0	2·5 ;	141 ;	21 ;	141	Dediapada	24-0
1247 Vāṇjhaṇītāḍ ND વાંઝણીતાડ	NE ;	17-4	0·3 ;	186 ;	32 ;	184	Gardeshwar	7-0
1248 Vaṇajhar ND વણઝર...	S ;	3-0	1·2 ;	232 ;	38 ;	221	Rajpipla	1-4
1249 Vaṇajhī ND વણઝી ...	NE ;	24-0	1·0 ;	180 ;	28 ;	180	Tanakhala	8-0
1250 Vaṇākpor JD વણાકપોર...	N ;	9-0	2·3 ;	1054 ;	198 ;	921	Rajpardi	2-0

Railway St.; Distance.		Weekly Bazar; Bazar Day; Distance.		Motor Stand; Distance.		Drinking water facilities	Institutions and other information.
Jhagadia	13-0			Dharoli	2-0	rv	sl(pr).
Rajpipla	4-0					w	sl(pr) ; ch.
Umalla	0-1			Local		w	dp ; church.
Tanakhala	5-0					str	sl(pr).
Juna Rajuvadia	3-0			Nikoli	1-4	str	sl(pr) ; 3tl.
Jhagadia	1-0			Karad	0-4	w	*Akik* stone quarry.
Rajpipla	25-0			Dediapada	12-0	str	
							Deserted.
Local				Local		w	sl(2pr, m) ; pyt ; cs(c) ; 2tl ; mq; 2dg ; dh ; ch ; lib ; 5dp ; taluka H. Q., P. W. D. Bungalow.
Chavaj	1-0						dg.
Tralsamath	1-0			Derol	1-4	w	sl(pr) ; fr. Phg. Sud. 12 ; mq ; 2dg ; ch ; lib.
Masar Road	1-4			Masar Road	1-0	w	sl(pr) ; tl ; ch.
Local				Vagra	5-0	w; t	sl(pr) ; cs(c) ; 2tl ; mq ; dg ; ch lib.
Malsar	5-0			Pratapnagar	2-0	w ; str	
Panoli	7-0	Hansot	3-0		1-0	w ; t	sl(pr) ; cs(c) ; 2tl ; ch ; lib.
Umalla	2-0			Umalla	2-4	w.	sl(pr).
Jhagadia	12-0			Local		w ; t	sl(pr, h) ; cs(mp, mis) ; 6tl ; 2dh dp ; Peta H. Q. tank in which white lotuses grow.
Jambusar	7-0			Nobar	1-0	w ;t	tl ; lib.
Amod	7-0	Amod	6-0			w	
Tanakhala	2-0			Indravarna	11-0	str	
Netrang	7-0			Yal	3-0	w ; str	cs(c).
Kim	15-0	Hansot	10-0	Ilav	7-0	w	sl(pr) : 2tl ; dg ; ch.
Netrang	9-0			Yal	2-0	str	
Netrang	42-0			Dediapada	24-0	str	
Tanakhala	6-0					w ; str	
Rajpipla	1-4			Rajpipla	1-4	rv	idol of Hanuman.
Tanakhala	8-0					w	
Rajpardi	2-0			Local		w	sl(pr) ; 4tl ; mq ; 5dg ; ch ; lib.

Serial No.	Village/Town name ; Taluka abbreviation Village/ Town name in Gujarati.	Direction from the Taluka/ peta H.Q. ; Travelling distance.		Area (sq.miles) ; Population ; Households ; Agricultural population.				Post Office ; Distance.	
1251	Vāndarīā VL વાંદરીઆ	SE,	6–0	0·9 ;	296 ;	54 ;	278	Dehali	2–0
1252	Vāndarīyā ND વાંદરીયા	N ;	8–0	1·4 ;	305 ;	47 ;	262	Chandod	2–0
1253	Vāṇkī Hāthaṇ JD વાંકી હાથણ	E ;	3–2	...	...	...	...		
1254	Vāṇkol JD વાંકોલ ...	E ;	16–0	2·6.	165 ;	29 :	164	Umalla	6–0
1255	Vānsalā ND વાંસલા ...	E ;	9–0	0·9 ;	289 ;	48 ;	285	Gardeshwar	1–4
1256	Vānsaṇā JD વાંસણા ...	S :	7–4	2·0 ;	937 ;	159 ;	856	Dharoli	2–4
1257	Vānsanolī HT વાંસનોલી	W ;	3–0	1·1 ;	202 ;	38 ;	193	Hansot	2–4
1258	Vānseṭa JB વાંસેટા ...	W :	5–0	1·5,	204 ;	46 ;	198	Kalak	1–3
1259	Vānsī BR વાંસી ...	NW :	6–0	3·5 ;	516 ;	90 ;	298	Karmad	2–0
1260	Vanṭhevāḍ JD વંઠેવાડ...	S.	1–2	1·2 ;	307 :	54 ;	229	Jhagadia	1–4
1261	Varāchā ND વરાછા ...	W ;	5–0	0·9 ;	209 ;	42 ;	188	Panetha	3–0
1262	Varakhaḍ ND વરખડ ...	NW ;	9–0	5·0 ;	709 ;	159 ;	638	Amletha	4–0
1263	Varakhaḍī JD વરખડી	E ;	24–0	1·5 ;	334 ;	50 ;	334	Netrang	7–0
1264	Vareḍīyā BR વરેડીયા ...	NE ;	12–0	2·3 ;	1134 ;	203 ;	913	Local	
1265	Vāsaṇā AD વાસણા ...	E ;	7–4	2·4 ;	502.	120 ;	494	Matar	2–4
1266	Vasantaparā ND વસંતપરા.	E :	8–0	4·5,	104 ;	21 ;	95	Gardeshwar	4–0
1267	Vastī Khaṇḍāli VG વસ્તી ખંડાલી.	E ;	1–4	2·0 ;	891.	168 ;	631	Local	
1268	Vātarasā AD વાતરસા ...	SE ;	9–0	2·6 ;	345 ;	69 ;	274	Tankaria	2–0
1269	Vatārīā VL વટારીઆ ...	W ;	5–0	3·5 ;	435 ;	93 ;	410	Valia	4–0
1270	Vāv DP વાવ ...	N ;	13–0	4·6	...	..	...		
1271	Vāv VG વાવ ...	W ;	17–0	2·4 ;	542 ;	113 ;	313	Pakhajan	5–0
1272	Vāvaḍī ND વાવડી ...	E ;	4–0	1·9 ;	1074 ;	210 ;	931	Local	
1273	Vavīāḷā ND વવીઆળા ...	NE ;	15–4	2·0 ;	587 ;	97 ;	561	Gardeshwar	4–0
1274	Vāvli JB વાવલી..	E ;	3–0	1·3 ;	775 ;	188 ;	724	Gajera	3–0
1275	Veḍacā AD વેડચા ..	E ;	6–0	2·3 ;	408 ;	83 ;	383	Sarbhan	1–0
1276	Veḍac JB વેડચ ..	S ;	8–0	12·9 ;	3437 ;	760 ;	3186	Local	
1277	Veḍachā DP વેડછા ..	E ;	11–0	1·5 ;	135 ;	20 ;	128	Dediapada	10–0
1278	Veguṇā DP વેગુણા ..	S ;	6–0	1·4	...	...	...		
1279	Ve'achandī ND વેલચંદી	SE ;	6–0	1·2 ;	118 ;	17 ;	118	Vardi	3–0

Railway St. ; Distance.	Weekly Bazar : Bazar Day ; Distance.	Motor Stand Distance.	Drinking water facilities.	Institutions and other information.
Mangrol 8-0		Dehali 2-0	str	
Chandod 2-0		Jior 2-0	rv	tl ; dh ; Vaidyanath Mahadev temple.
				Deserted.
Umalla 6-0			str	
Rajpipla 11-0		Local	w	—
Damlai 2-4		Dharoli 2-0	w ; str	sl(pr) ; cs(mp) ; tl.
Ankleshwar 16-0	Hansot ... 2-4	Hansot 3-0	w	tl ; dg.
Jambusar 5-0		Kalak 1-0	w	tl.
Tham 5-0		Vesadada 1-4	w	sl(pr) ; cs(c) ; mq ; 6dg.
Jhagadia 1-4		Jhagadia 1-0	w ; t	
Juna Rajuvadia 7-0			rv.	2tl.
Amletha 4-0		Ori 1-4	w ; rv	sl(pr) ; pyt ; 5tl ; dg ; dh ; ch ; lib.
Netrang 7-0		Netrang 6-0	w ; str	
Local		Tankaria 2-0	w	sl(pr) , cs (c) ; mq ; dg ; dh ; ch ; lib.
Amod 6-0	Amod ... 6-0	Mater 3-0	w ; t	cs (c) , tl ; dh ; dp.
Rajpipla 12-0		Indravarna 3-0	rv	
Vagra 1-4		Vagra 1-4	w	sl(pr) ; cs(mp) ; mq ; dg.
Samni 5-0	Amod ... 7-0	Samni 4-0	w	sl(pr) ; cs (c) ; mq ; dg.
Dadhal 5-0		Valia 4-0	w ; t	Bandhichod Pir fr. Mg. Sud. 10 ; 2tl ; dg.
				Deserted.
Sambheti 1-4		Jolava 4-0	w ; t	sl(pr) ; 2tl.
Rajpipla 5-0		Local	w	sl(pr) ; 2tl ; Swaminarayan temple.
Rajpipla 16-0			w	sl(pr).
Ankhi 1-0			w	sl(pr) : tl ;
Amod 5-0	Amod ... 5-4	Sarbhan 1-0	w	sl(pr) ; cs(c) ; 2tl ; M ; dh ; ch.
Masar Road 5-0		Local	w	2sl(pr) ; pyt ; 4tl ; M ; mq ; dg ; dh ; ch ; lib.
Netrang 26-0		Dediapada 10-0	w ; str	
				Deserted.
Rajpipla 6-0		Local 1-0	w	

Serial No. Village/Town name : Taluka abbreviation Village/Town name in Gujarati.	Direction from the taluka/peta H.Q. : Travelling distance.	Area (Sq.miles) ; Population ; Households ; Agricultural population.	Post Office Distance.
1280 Velugām D વેલુગામ	N : 17–4	2·7 ; 1325 ; 266 ; 890	Panetha. 2–0
1281 Vengṇī VG વેગણી	S ; 17–0	2·2 ; 567 ; 122 ; 532	Dahej. 8–0
1282 Veravāḍā BR વેરવાડા	W ; 5–4	0·9 ; 144 ; 31 ; 144	Broach. 3–4
1283 Verīsālapara ND વેરીસાલપરા	S ; 3–0	0·3 ; 125 ; 19 ; 125	Rajpipla. 1–4
1284 Vesadaḍā BR વેસદડા	W ; 6–0	1·6 ; 277 ; 64 ; 221	Broach. 6–0
1285 Vichīāḍ VG વીંછીઆડ	N ; 3–0	1·8 ; 315 ; 77 ; 200	Vagra. 2–4
1286 Vilāyat VG વિલાયત	SE ; 7–0	6·4 ; 1055 ; 221 ; 685	Local.
1287 Vīrapor ND વીરપોર	W ; 3–0	0·9 ; 499 ; 90 ; 496	Amletha. 4–0
1288 Vīrasaṅgpurā ND વીરસંગપુરા	W ; 7–0	0·6 ; 105 ; 18 ; 105	Amletha. 1–0
1289 Visalkhāḍī ND વિસલખાડી	S ; 13–0	1·0 ; 63 ; 11 ; 45	Rajpipla. 13–0
1290 Viṭṭhalgām VL વિઠ્ઠલગામ	SE ; 6–0	1·3 ; 377 ; 64 ; 334	Dehali. 2–0
1291 Vorā Samnī VG વોરા સમની	SE; 5–0	2·1 ; 1661 ; 201 ; 1616	Local.
1292 Yāl JD યાલ ...	SE ; 25–0	0·8 ; 136 ; 18 ; 136	Rajpipla. 11–0

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water faciities.	Institutions and other information.
Umalla 6-0			rv.	sl(pr) ; 4tl ; 2dg ; dh ; ch.
Sambheti 8-0			w ;	sl(pr) ; cs(c) ; 2tl ; M.
Broach 3-4			w ; rv.	dg ; ch.
Rajpipla 1-4			str.	
Broach 6-0		Local	w.	tl ; 2dg.
Vagra 2-4		Khad Khandali. 1-4	w ; t.	sl(pr) ; 2tl ; 3M ; mq dg ; ch.
Derol 4-0		Argama 2-0	w.	sl(pr) ; cs(mp) ; tl ; mq ; dg ; dp.
Amletha 4-0		Local	str.	sl(pr).
Amletha 1-0				
Rajpipla 13-0		0-4	w.	
Mangrol 6-0		Dehali 3-0	w ; rv.	
Dayadra		Ankot 2-0	w.	sl(pr) ; mq ; dg ; ch.
Rajpipla 11-0		Local	w ; str.	

Villages transferred from West Khandesh District

Serial No.	Village/Town name ; Taluka abbreviation ; Village/Town name in Gujarati.	Direction from the taluka/peta H. Q.	Travelling distance.	Area (Sq. miles)	Population	Households	Agricultural population.	Post Office	Distance.
1293	Anaghaṭ SR અનઘટ ..	SE ;	12–0	0·8 ;	...	...	...	......	
1294	Barkaturā SR બર્કતુરા ..	SE ;	11–0	...	221 ;	39 ;	221	Akkalkuva	9–0
1295	Bhogavaḍ SR ભોગવડ	SE ;	10–0	0·5 ;	264 ;	40 ;	263	Akkalkuva	10–0
1296	Cāṭavaḍ SR ચાટવડ ..	E ;	18–0	1·2 ;	391 ;	67 ;	385	Kukarmunda	6–0
1297	Choṭi Korāli SR છોટી કોરાલી	SE ;	12–0	0·3 ;	...	...	...	......	
1298	Ḍogarīpāḍā SR ડોગરીપાડા	SE ;	15–0	0·3 ;	691 ;	106 ;	682	Kukarmunda	10–0
1299	Jāvalī SR જાવલી ..	E ;	16–0	1·6 ;	1064 ;	178 ;	990	Kukarmunda	10–0
1300	Kenavāḍā SR કેનવાડા...	SE ;	13–0	1·0 ;	153 ;	24 ;	134	Kukarmunda	13–0
1301	Khairapāḍā SR ખૈરપાડા	SE ;	11–0	2·0 ;	673 ;	106 ;	656	Kukarmunda	14–0
1302	Khānorā SR ખાનોરા ..	SE ;	16–0	0·5 ;	256 ;	42 ;	240	Kukarmunda	12–0
1303	Khokavāḍ SR ખોકવાડ	SE ;	11–0	1·2 ;	494 ;	93 ;	359	Kukarmunda	13–0
1304	Kokaṭīpāḍā SR કોકટીપાડા	SE ;	11–0	1·2 ;	247 ;	43 ;	132	Kukarmunda	14–0
1305	Kolavān SR કોલવાન ..	SE ;	13–0	3·1 ;	1389 ;	218 ;	1300	Kukarmunda	10–0
1306	Langaḍī SR લંગડી ..	E ;	22–0	0·6 ;	462 ;	61 ;	416	Kukarmunda	6–0
1307	Meḍhī SR મેઢી ..	SE ;	16–0	1·0 ;	259 ;	26 ;	174	Kukarmunda	12–0
1308	Navāgām SR નવાગામ	E ;	14–0	1·3 ;	686 ;	115 ;	670	Kukarmunda	11–0
1309	Nevaḍī SR નેવડી ..	SE ;	12–0	0·8 ;	318 ;	32 ;	309	Akkalkuva	13–0
1310	Palāsavāḍā SR પલાસવાડા	E ;	16–0	1·7 ;	491 ;	73 ;	479	Kukarmunda	8–0
1311	Pānā SR પાના ..	SE ;	10–0	0·4 ;	81 ;	14 ;	74	Akkalkuva	13–0
1312	Paroḍī SR પરોડી ..	SE ;	10–0	0·5 ;	168 ;	28 ;	159	Korai	4–0
1313	Pīmprīpāḍā SR પીંપ્રીપાડા	SE ;	10–0	0·5 ;	51 ;	9 ;	51	Akkalkuva	12–0
1314	Rāṇīpur SR રાણીપુર ..	SE ;	13–0	0·9 ;	424 ;	72 ;	398	Kukarmunda	10–0
1315	Rānjhaṇīvāḍ SR રાંઝણીવાડ	SE ;	13–0	1·8 ;	659 ;	102 ;	607	Korai	8–0
1316	Rūdigavān રૂદીગવાણ SR	E ;	20–0	1·2 ;	593 ;	93 ;	558	Kukarmunda	7–0
1317	Umān SR ઉમાન ..	SE ;	14–0	0·7 ;	375 ;	62 ;	364	Kukarmunda	8–0
1318	Umarāṇ SR ઉમરાણ ..	SE ;	12–0	1·0 ;	247 ;	39 ;	237	Kukarmunda	12–0
1319	Vaḍagām SR વડગામ ..	SE ;	13–0	2·6 ;	850 ;	125 ;	820	Kukarmunda	12–0

at the time of bifurcation of the Bombay State on 1st May, 1960.

Railway St. ; Distance.	Weekly Bazar ; Bazar Day ; Distance.	Motor Stand ; Distance.	Drinking water facilities.	Institutions and other information.
......	......	Khapar 1–0	...	Deserted.
Nandurbar 31–0	Khapar Tues. 3–0	Khapar 5–0	w.	sl (pr). , pyt.
Nandurbar 30–0	Khapar Tues. 5–0	Khapar 6–0	rv.	sl (pr).
Nandurbar 21–0	Khapar Tues. 3–0	Khapar 5–0	w.	sl (pr). ; pyt.
......	......	Khapar 1–0	...	Deserted.
Nandurbar 19–0	Khapar Tues. 3–0	Khapar 5–0	w.	sl (pr). ; pyt.
Nandurbar 20–0	Khapar Tues. 4–0	Local ...	w.	sl (pr). ; pyt.
Nandurbar 19–0	Khapar Tues. 5–0	Khapar 6–0	rv.	sl (pr). ; pyt.
Nandurbar 26–0	Khapar Tues. 6–0	Khapar 6–0	rv.	sl (pr). ; pyt.
Nandurbar 18–0	Khapar Tues. 4–0	Khapar 6–0	rv.	sl (pr). ; pyt.
Nandurbar 23–0	Khapar Tues. 5–0	Khapar 7–0	w. ; rv.	sl (pr). ; pvt. ; cs.
Nandurbar 24–0	Khapar Tues. 6–0	Khapar 7–0	rv.	sl (pr). ; pyt.
Nandurbar 23–0	Khapar Tues. 2–0	Khapar 2–0	w. ; rv.	sl (pr). ; ptv. ; cs.
Nandurbar 19–0	Khapar Tues. 6–0	Khapar 6–0	rv.	sl (pr). ; pvt. ; [illegible]s.
Nandurbar 17–0	Khapar Tues. 5–0	Khapar 6–0	rv.	sl (pr). ; pvt.
Nandurbar 21–0	Khapar Tues. 3–0	Local ...	w.	sl (pr). ; pvt. ; cs. ; tl.
Nandurbar 25–0	Khapar Tues. 5–0	Khapar 5–0	w.	sl (pr). ; pyt.
Nandurbar 22–0	Khapar Tues. 4–0	Khapar 4–0	w.	sl (pr). ; pyt. ; cs. ; (mp). . tl.
Nandurbar 30–0	Khapar Tues. 5–0	Khapar 6–0	rv.	sl (pr).
Nandurbar 32–0	Khapar Tues. 4–0	Khapar 6–0	w. ; rv.	sl (pr).
Nandurbar 32–0	Khapar Tues. 5–0	Khapar 5–0	rv.	
Nandurbar 22–0	Khapar Tues. 2–0	Khapar 2–0	w. ; rv.	sl (pr.). ; pyt.
Nandurbar 21–0	Khapar Tues. 8–0	Khapar 5–0	w. ; rv.	sl (pr). ; pyt. ; cs.
Nandurbar 22–0	Khapar Tues. 5–0	Khapar 8–0	rv.	sl (pr). ; pyt. ; cs (mp).
Nandurbar 20–0	Khapar Tues. 3–0	Khapar 2–0	w. , rv.	sl (pr). ; pyt.
Nandurbar 24–0	Khapar Tues. 4–0	Khapar 4–0	w.	sl (pr). ; pyt.
Nandurbar 22–0	Khapar Tues. 4–0	Khapar 6–0	w. ; rv.	sl (pr). ; pyt.

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INDEX

(In this index diacritical marks have been avoided, although in certain chapters many of the place names and other words are marked diacritically in the text)